

**A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AUTHORIZING THE COUNTY ADMINISTRATOR, OR DESIGNEE, TO AWARD BID NO. 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE TO VARGCO, LLC AS THE LOWEST, RESPONSIVE, RESPONSIBLE BIDDER, TO TRANSFER \$400,000 FROM SILVERLEAF FIRE STATION PROJECT TO THE FLAGLER ESTATES FIRE STATION PROJECT WITHIN THE 2024A PUBLIC SAFETY BOND, AND TO EXECUTE AN AGREEMENT FOR COMPLETION OF THE PROJECT.**

**RECITALS**

**WHEREAS**, the County is progressing with the project to construct a new fire station with a field office for the St. Johns County Sheriff's Office in the Flagler Estates community located in Hastings, St. Johns County, Florida; and

**WHEREAS**, through the County's formal Bid process, Vargco, LLC was the lowest, responsive, responsible bidder, for Bid Option A for project completion within a 10-month timeframe, with a total project not-to-exceed bid price of \$4,001,674.00, which includes Allowance 1, Bid Alternate 2, Alternate 5, Alternate 7, Alternate 8, and Value Engineering Options as provided in Exhibit "A" of the proposed Contract; and

**WHEREAS**, the County finds that entering into a contract for completion of the work serves a public purpose, and the contract will be in substantial conformance with the attached draft; and

**WHEREAS**, the project will be funded by the Public Safety 2024A Bond.

**NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA**, as follows:

Section 1. The above Recitals are incorporated by reference into the body of this Resolution and such Recitals are adopted as finds of fact.

Section 2. The County Administrator, or designee, is hereby authorized to award Bid No. 2016R to Vargco, LLC as the lowest, responsive, responsible bidder.

Section 3. Upon approval by the Board of County Commissioners, the County Administrator, or designee, is further authorized to execute an agreement in substantially the same form and format as the attached draft for the completion of the project as specifically provided in Bid No: 2016R.

Section 4. Board authorizes the transfer of \$400,000 from the Silverleaf Fire Station project to the Flagler Estates Fire Station project within the 2024A Public Safety Bond.

Section 5. To the extent that there are typographical and/or administrative errors that do not change the tone, tenor, or concept of this Resolution, then this Resolution may be revised without subsequent approval by the Board of County Commissioners.

**PASSED AND ADOPTED** by the Board of County Commissioners of St. Johns County, Florida, this 4<sup>th</sup> day of February, 2025.

**BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA**

Rendition Date FEB 5 2025

By: [Signature]  
Krista Joseph, Chair

**ATTEST: Brandon J. Patty,**  
Clerk of the Circuit Court & Comptroller

By: [Signature]  
Deputy Clerk





MASTER CONSTRUCTION AGREEMENT  
BETWEEN  
ST. JOHNS COUNTY AND CONTRACTOR

Master Construction Agreement No: \_\_\_\_\_

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This Master Construction Agreement (“Contract”) is made this \_\_\_\_ day of \_\_\_\_\_, 2024 (the “Effective Date”) by and between **ST. JOHNS COUNTY** ( “County”), a political subdivision of the State of Florida, whose principal offices are located at 500 San Sebastian View, St. Augustine, FL 32084, and **VARGCO, LLC** (“Contractor”), a company authorized to do business in the State of Florida, with its principal offices located at: 1950 San Marco Blvd, Suite 2, Jacksonville, FL 32207, Phone: (904) 387-6677, and E-mail: carlos@vargco.com, for **IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE** hereinafter referred to as the “Project”. When referenced together, the County and Contractor shall collectively be referred to as the Parties.

In consideration of the mutual promises and covenants contained herein, the Parties hereby agree as follows:

## ARTICLE I CONTRACT DOCUMENTS

### 1.1 The Contract Documents

1.1.1 The Contract Documents are the collective documents which form the Contract, and shall govern completion of the Work. The Contract Documents hereby include the following:

- a) Fully Executed Change Orders and Amendments to this Agreement;
- b) Field Orders signed by County’s Project Manager;
- c) Notice to Proceed;
- d) This Master Construction Agreement and all Exhibits and/or Attachments hereto:
  - i. Exhibit A – Project Price Breakdown
  - ii. Exhibit B – Construction Plans
  - iii. Exhibit C – Technical Specifications
  - iv. Exhibit D – SJC Construction Permit COMM 2024-86
  - v. Exhibit E – SJRWMD Permit 223875-1
  - vi. Exhibit F – 01 23 00-Alternates REV
- e) Bonds and Insurance furnished by the Contractor in accordance with Article XIII herein;
- f) IFB Documents and Bid Forms with all addenda thereto for IFB No. 2016R

1.1.2 Documents not enumerated above are not Contract Documents and do not form part of this Contract. No terms, conditions, limitations or exclusions in Contractor’s submitted Bid or invoices shall be binding upon County or become part of the Contract Documents. In the event of discrepancies, the Contract Documents shall be interpreted in the order of precedence as listed above in Section 1.1.1. Additionally, Specifications shall govern over Drawings, electronic documents shall govern over hard-copy documents, numerical dimensions shall govern over dimensions acquired by scaling, and fully executed documents shall govern over unsigned drafts.

1.1.3 Shop Drawings, Product Data, Samples and similar submittals (hereafter “Submittals”) are not Contract Documents. The County will review and take action upon Contractor’s submitted Submittals but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Review of Submittals is not conducted for the purpose of determining the accuracy and completeness of other details, such as dimensions and quantities, nor for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of Contractor.

1.1.4 All Submittals (whether in hard or soft copy) prepared by or on behalf of Contractor in the course of the Work shall be the exclusive property of the County. Ownership of any proprietary information or intellectual property contained in such Submittals shall remain with Contractor. Contractor grants the County a perpetual, royalty-free, license to use, copy and allow third parties to use such Submittals and all proprietary information contained in them as may be required for the County’s internal business purposes including without limitation tendering, installing, operating, repairing, maintaining, modifying, reconstructing, replacing and/or upgrading the Work. Such license shall be capable of transfer and/or sub-licensing in whole or part without notice to or further consent of Contractor. Contractor shall not be held liable for reuse of Contractor’s Submittals by the County for purposes other than originally intended as stated in the Contract Documents.

1.1.5 Contractor is solely responsible for requesting instructions, interpretations, or clarifications to the Contract Documents and is solely liable for any costs and/or expenses arising from its failure to do so. Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the Submittals and shall give

immediate written notice to the Project Manager and the County of any inconsistency, ambiguity, error or omission which Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance, or the express or implied approval by the County or the Project Manager of the Contract Documents or Submittals shall not relieve any such approval by evidence of Contractor's compliance with the Contract. The County has requested the Project Manager to provide to Contractor documents for the Project, including the Drawings and Specifications for the Project, which are accurate, adequate, consistent, coordinated, and sufficient for construction. HOWEVER, THE COUNTY MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO CONTRACTOR CONCERNING SUCH DOCUMENTS. By the execution hereof, Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that Contractor has not, does not, and shall not rely upon any representation or warranties by the County concerning such documents as no such representation or warranties have been or are hereby made.

1.1.6 Any dispute relating to the Contract Documents, shall be resolved through good faith efforts upon the part of the Contractor and the County. Should Contractor have any questions concerning interpretation or clarification of the Contract Documents, Contractor shall submit to the County's Project Manager, in writing, a request for clarification that clearly and concisely sets forth the issues for which such request is sought. Such request shall be submitted to the Project Manager by the Contractor within three (3) business days of receipt of the Contract Documents, or the direction, interpretation, or clarification thereof provided by the County. The County's Project Manager shall render a determination concerning such interpretation or clarification, which shall be considered final and conclusive unless Contractor files a written protest within fourteen (14) calendar days of receipt thereof. Contractor's protest shall be submitted to the Purchasing Director, and shall state clearly and in detail the basis thereof. Failure by the Contractor to protest the County Project Manager's rendered determination within the timeframe above, shall constitute a waiver by the Contractor of all its rights to further protest, judicial, or otherwise. The Purchasing Director shall consider the Contractor's protest and shall render a decision thereon, in writing, within ten (10) calendar days. If Contractor does not agree with the determination of the Purchasing Director, the Contractor shall deliver written notice to that effect to the County within three (3) business days of receipt of the determination by the Purchasing Director.

1.1.7 Unless otherwise directed in writing, Contractor shall at all times carry on with the Work and maintain its progress schedule in accordance with the requirements of the Contract and the determination of the County, pending resolution of any Contract Document dispute. In no event will a dispute, the filing of a protest, claim or appeal, or the resolution or litigation thereof, relieve Contractor from its obligation to timely perform the Work required by the Contract and to maintain the progress schedule in accordance with the Contract.

1.1.8 Any and all Contract Documents shall remain the property of the County. Contractor is granted a limited license to use and reproduce applicable portions of the Contract Documents issued by the County appropriate to, and for use in, execution of the Work. Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Work; provided, however, that in no event shall Contractor and/or its subcontractors use, or permit to be used, any or all of such Contract Documents on other projects without the specific written consent of the County.

## **1.2 Definitions**

Terms used within this Agreement shall have the meaning as set forth in the St. Johns County Purchasing Policy, or as provided herein. Terms defined herein for specific application to this Contract shall govern over definition of terms provided in the St. Johns County Purchasing Policy.

1.2.1 Acceptance of the Work: Written acceptance of the Work by the County and the County's Project Manager.

1.2.2 Applicable Laws: All local, state, and federal laws, statutes, codes, ordinances, rules and regulations in effect at the time Work and Warranty Work is performed under this Contract.

1.2.3 Claim: Any claim, liability, loss, demand, demand for arbitration, damage, lien, cause of action of any kind, obligation, responsibility, cost, expense, royalty, fee, assessment, penalty, fine, judgment, interest or award, pending or threatened, whether arising by law, contract, tort, voluntary settlement or otherwise.

1.2.4 Contract Price: The sum set forth in Article IV of this Contract shall constitute the Contract Price, as may be amended by Change Order. Unless otherwise approved by the County in writing, the Contract Price includes all taxes,

including without limitation, income and withholding tax of any kind and sales tax imposed by the state or by the County and paid by Contractor or any Subcontractors with respect to sales of goods purchased for the performance of the Work.

1.2.5 Contract Time: The number of calendar days between commencement and completion of the Work, established in paragraph 3.1.1 of this Contract, as may be amended by Change Order.

1.2.6 Design: Those design services related to the Project prepared by the County or the County's consultants or other representatives, which shall, as may be required, be included in Contractor's Work.

1.2.7 Drawings: The graphic and pictorial portions of the Contract Documents, illustrating the design, location and dimensions of the Work, generally including but not limited to, plans, elevations, sections, details, general notes, schedules and diagrams.

1.2.8 Final Completion: Completion of all Work in compliance with the Contract Documents, as determined by the County, and issuance of a Final Certificate for Payment.

1.2.9 Force Majeure Events: Those events that are not reasonably foreseeable and are beyond the control of both the Contractor and the County, including acts of war, terrorist attacks, labor strikes, floods, earthquakes, epidemics, pandemics, riots, adverse weather conditions, and other acts of God.

1.2.10 Jobsite: Any physical location or other place on, under, in, at or through which any aspect of the Work is performed.

1.2.11 Notice to Proceed: A written notice given by the County to Contractor fixing the date on which the Contract Time will commence to run and identifying the corresponding Substantial Completion and Final Completion dates.

1.2.12 Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by Contractor to illustrate materials or equipment for some portion of the Work.

1.2.13 Project: The total undertaking to be accomplished for County by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

1.2.14 Project Manager: The County's representative assigned to the Project, or any part thereof, to observe the Work and perform certain other obligations of the County as defined in Article VI below.

1.2.15 Shop Drawings: Drawings, diagrams, schedules, and other data specially issued for the Work by Contractor or a Subcontractor, Sub-subcontractor, and material suppliers to illustrate some portion of the Work.

1.2.16 Specifications: That portion of the Contract Documents consisting of the written requirements for materials, standards, equipment, construction systems, and standards of workmanship for the Work, and performance of related services.

1.2.17 Subcontractor: A Subcontractor is an individual, partnership, corporation, association, joint-venture or any combination thereof, which has a direct or indirect contract with Contractor to perform a portion of the Work.

1.2.18 Substantial Completion: The stage in the progression of the Work when the Work is sufficiently complete in accordance with this Contract so that the County can enjoy beneficial use or occupancy of the Work and can utilize the Work for its intended purpose.

1.2.19 Work: Construction and services required by the Contract Documents, including all labor, materials, equipment and services as well as other deliverables provided, or to be provided, by Contractor to fulfill Contractor's obligations under this Contract. The Work may constitute the whole or part of the Project.

### **1.3 Ownership of Contract Documents**

Any and all Contract Documents shall remain the property of the County. Contractor is granted a limited license to use and reproduce applicable portions of the Contract Documents issued by the County appropriate to, and for use in, execution of

the Work. Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Work; provided, however, that in no event shall Contractor and/or Contractor's subcontractors use, or permit to be used, any or all of such Contract Documents on other projects without the specific written consent of the County.

## **ARTICLE II THE WORK**

### **2.1 Project Description**

The Project involves constructing a new Fire Station in the Flagler Estates community. The site location for the new fire station is located at 4630 Melanie Street, Hastings, Florida 32145. The fire station facility will include an apparatus bay, living quarters, and all necessary apparatus support spaces. This facility will also include a space for the St. Johns County Sheriff's Office..

### **2.2 Labor and Materials**

2.2.1 Contractor shall perform all of the Work required, implied, or reasonably inferable from, the Contract Documents. Unless otherwise provided in the Contract Documents, Contractor shall provide and pay for all labor, supervision, materials, supplies, tools, transportation, storage, construction equipment and machinery, utilities (including but not limited to water, heat, fuel, light, and cooling), and all other services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. Materials, articles and equipment furnished by Contractor for incorporation into the Work shall be new unless otherwise specified in the Contract Documents.

2.2.2 Contractor shall use only competent and skilled personnel to perform and supervise the Work and shall remove from such Work any person determined to be unfit, unqualified, or acting in violation of any obligation of Contractor under this Contract. In the event a person is removed from the Work, Contractor shall promptly replace such individual with another who is fully competent and skilled to perform the Work at Contractor's sole expense.

2.2.3 Except as otherwise required for the safety or protection of persons or the Work or property at the Jobsite or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Jobsite shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with the County's prior written consent, which will not be unreasonably withheld.

2.2.4 In addition, when the Work requires by Florida Statute, Contractor shall use only licensed, registered and/or certified personnel to perform the Work. Such Statutes may include, but are not limited to, Chapter 489 (Regulation of Professions and Occupations Contracting) and Chapter 633, Part III (Fire Protection and Suppression) of the Florida Statutes.

### **2.3 Project Sequencing/Arrangement**

Contractor shall not be limited in the sequencing or staging of the Work except to the extent that the Contract Documents impose limitations. Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization/arrangement of the Drawings or Design, shall control Contractor in dividing the Work or in establishing the extent or scope of Work to be performed by Subcontractors.

### **2.4 Payment of Costs**

Except as otherwise expressly provided, Contractor shall pay directly all costs and expenses of the Work of any kind or nature whatsoever including but not limited to all costs of permitting, regulatory compliance, obtaining and maintaining required bonds and insurance pursuant to Article XIII, payments due to Subcontractors and suppliers, legal, financial, sales, use and similar taxes on materials and equipment, transportation and storage of materials and equipment, preparation of schedules, budgets and reports and all other costs required to achieve Substantial Completion and Final Completion in accordance with the Contract Documents.

### **2.5 Cleaning the Jobsite**

Contractor shall keep the Jobsite neat, secure and orderly during performance of the Work and shall clean up and remove all waste, rubbish and construction debris from the Jobsite as they accumulate. Upon Final Completion of the Work, Contractor shall remove all waste, rubbish and construction debris from and about the Jobsite as well as all tools, appliances, construction equipment, temporary utilities, temporary construction and machinery and surplus materials. Contractor shall restore to original condition all property not designated for alteration by the Contract Documents.



## **2.6 Reporting Requirements**

2.6.1 Daily Record. The Contractor shall keep a daily record of the Work at the Jobsite. At a minimum the Daily Record shall include weather conditions, number of workers (by trade) on the Jobsite, and material/equipment deliveries. Daily Records shall be submitted by close of business the following day.

2.6.2 Monthly Report. The Contractor shall prepare and submit a written monthly report by the tenth day of each calendar month. Monthly reports shall at a minimum describe Work completed in the prior month, planned Work for the current month, detailed explanations of any activity that is behind schedule, corrective actions taken to recover schedule, safety and environmental incidents and corrective actions taken.

## **2.7 Title and Risk of Loss**

Title to the structures, improvements, fixtures, machinery, equipment and materials constituting the Work or the Project shall pass to the County no later than time of payment. Such transferred title shall in each case be good, free and clear of any and all security interests, liens or other encumbrances. Contractor shall, however, bear all risk of loss concerning such structures, improvements, fixtures, machinery, equipment and materials until Substantial Completion, regardless of the extent to which the loss was insured or the availability of insurance proceeds. The transfer of title does not imply acceptance by the County nor does it relieve Contractor from the responsibility for any loss or damage to items.

## **2.8 Access to Work**

The County and the Project Manager, shall at all reasonable times have full access to all parts and locations of the Jobsite(s) from commencement of the Work through Final Completion. Contractor shall take whatever steps necessary to provide such access when requested.

## **2.9 Utilities**

Contractor shall, at its expense, make all arrangements necessary to secure the availability of and maintain all temporary utilities required to construct and operate Contractor's Work as required by the Contract Documents. If the scope of Work requires, Contractor shall arrange for activating permanent power, water, and sanitary service to the Project prior to Substantial Completion. This includes legal sketches and descriptions for easement as well as record drawings requirements required by utility companies. The County will assume permanent utility costs at Substantial Completion.

## **2.10 Existing Utility Lines**

2.10.1 When existing Utility Lines (e.g. conduits, pipelines, transmission mains and utility equipment and appurtenances) shown on the Drawings are to be removed or relocated, Contractor shall notify the Project Manager in ample time (but in no event less than five (5) business days) for taking measures for prevention of the interruption of any required services prior to the beginning of operations. Locations of existing utility lines shown on the Drawings are based on the best information available to the Project Manager, but shall not be considered exact either as to location or number of such lines.

2.10.2 Contractor shall protect Utility Lines constructed under terms of the Contract and those discovered or shown on Drawings to be existing. In the event that Contractor damages any existing Utility Lines, shown or not shown on the Drawings, Contractor shall immediately notify the Project Manager. Damage occurring to existing Utility Lines due to Contractor's failure to exercise reasonable care shall be repaired or replaced at no cost to the County.

## **2.11 Taxes**

2.11.1 Contractor shall pay all taxes, levies, duties and assessments of every nature which may be applicable to any Work under this Contract. The Contract Price and any agreed variations thereof shall include all applicable taxes imposed by law. Contractor shall make any and all payroll deductions required by law. Contractor herein indemnifies and holds the County harmless from any liability on account of any and all such taxes, levies, duties, assessments and deductions. The indemnity provision of this section shall survive the expiration or earlier termination of this Contract. Contractor may not use County's tax-exempt status unless specifically authorized in writing in advance.

2.11.2 Foreign Entity Tax Withholding. Amounts due to certain foreign persons or entities may be subject to backup withholding taxes under federal law. If Contractor is a foreign person or entity that is required to complete Internal Revenue Service ("IRS") Form W-8ECI, Contractor shall provide County a copy of Contractor's current Form W-8ECI prior to issuance of any invoice or payment under this Contract. If Contractor fails to timely provide a completed, current Form W-8ECI, County will withhold all backup withholding taxes from the amounts due to the Contractor, remit such sums to the IRS, and pay Contractor only the remainder. County makes no representation regarding the tax treatment of amounts due to

Contractor, and Contractor releases and holds the County harmless from any claims or damages in any way relating to or arising from any tax withholding by County pursuant to this section.

## **2.12 Publicity and Advertising**

2.12.1 Contractor shall not make any announcement or release any information or publish any photographs concerning this Contract, the Work or the Project or any part thereof to any member of the public, press or any official body, unless prior written consent is obtained from the County.

2.12.2 Use of the County Seal or County Logo is strictly prohibited. In accordance with, County Ordinance 92-2 and County Administrative Policy 101.3, Contractor may not manufacture, use, display, or otherwise use any facsimile or reproduction of the County Seal or Logo without express written approval of the Board of County Commissioners of St. Johns County, Florida.

## **2.13 County Furnished Items**

2.13.1 The County shall furnish to Contractor, at the time of executing this Contract, written and tangible material concerning conditions below ground at the Jobsite. Such written and tangible material is furnished to Contractor only in order to make disclosure of such material and for no other purpose. By furnishing such material, the County does not represent, warrant, or guarantee its accuracy either in whole, in part, implicitly, or at all, and shall have no liability therefore. The County shall also furnish surveys, legal limitations and utility locations (if known), and a legal description of the Project's Jobsite.

2.13.2 Contractor shall obtain and pay for all permits, fees and licenses necessary and ordinary for the performance of the Work. Excluding such permits, fees and licenses, the County shall obtain all approvals, easements, and the like required for construction.

2.13.3 Subject to Paragraph 1.6 above, the County shall furnish Contractor electronic copies of the Contract Documents for execution of the Work. Hard copies of the Contract Documents shall be the responsibility of Contractor.

# **ARTICLE III CONTRACT TIME**

## **3.1 Contract Time**

3.1.1 Contractor shall commence the Work within ten (10) calendar days following receipt of the County's Notice to Proceed and shall complete construction within ten (10) months. Contractor shall substantially complete all Work within **two hundred seventy (270)** consecutive calendar days as may be extended pursuant to Paragraph 9.2 of this Contract. Final Completion shall be reached within **thirty (30)** consecutive calendar days after Substantial Completion.

3.1.2 Contractor, prior to commencing the Work, shall submit to the Project Manager for his/her information, Contractor's schedule for completing the Work. Contractor's schedule shall be revised no less frequently than monthly (unless the parties otherwise agree in writing) and relate to the entire Work. By way of illustration and not exclusion, Contractor's schedule shall: (1) contain sufficient activities to assure adequate planning for the Work, (2) include approved changes to the Work that impact the schedule, (3) include a clearly defined critical path, and (4) include a unique description for each activity. In the event any schedule revision impacts the completion time as provided in Paragraph 3.1.1 above, Contractor shall submit a request for additional time, in accordance with procedures as provided in Paragraph 9.2 below. Failure by Contractor to strictly comply with the provisions of this Paragraph shall constitute a material breach of this Contract.

## **3.2 Time is of the Essence**

Time is of the essence regarding each and every obligation of Contractor under this Contract. Each obligation is deemed material, and a breach of any such obligation (including a breach resulting from untimely performance) is a material breach.

## **3.3 Substantial Completion**

3.3.1 When Contractor considers the Work is substantially complete, Contractor shall notify the Project Manager in writing and submit a comprehensive list of incomplete items to be completed or corrected prior to Final Completion. The Project Manager will promptly inspect the Work following receipt of Contractor's notice and attached list of incomplete items. The Project Manager may refuse to inspect the Work if the Work is obviously not substantially complete or when Contractor's list is not complete.

3.3.2 To the extent applicable to Contractor's specific Work scope, the following items shall be completed prior to Contractor's request for a Substantial Completion inspection.

- a) All general construction completed.
- b) Project Jobsite cleared of Contractor's excess equipment, storage shacks, trailers, and/or building supplies.
- c) Project record Drawings and Specifications submitted in accordance with the Contract Documents.
- d) Preliminary as-built drawings submitted.
- e) All applicable permits required for use provided.
- g) All operations and maintenance manuals, training literature, and software for all equipment provided.
- h) Manufacturers' certifications and warranties provided.
- i) All required spare parts and special tools provided.

3.3.3 If Substantial Completion is not obtained at the inspection called by Contractor, for reasons which are the fault of Contractor, the cost of any subsequent inspections requested by Contractor for the purpose of determining Substantial Completion shall be the responsibility of Contractor and shall be assessed against the final payment application.

3.3.4 Once Substantial Completion is achieved and within the time allowed by F.S. 218.70 et seq, the Project Manager will prepare the punch list required by the Local Government Prompt Payment Act. Unless otherwise mutually agreed, the punch list items shall be corrected by Contractor within thirty (30) calendar days and prior to any request for Final Inspection and Acceptance. The failure to include any corrective Work or pending items not yet completed on the list does not alter the responsibility of Contractor to complete the Work pursuant to this Contract.

### **3.4 Final Inspection**

When all the Work is finally complete and Contractor is ready for a final inspection, Contractor shall provide written notice to the County and the Project Manager. The Project Manager, with Contractor's cooperation, will conduct such reviews, inspections and tests as may be reasonably required to satisfy the County that the Work, or identified portion of the Work, conforms to all requirements of the Contract Documents. If the Project Manager determines that the Work or any part of the Work is not complete or fails to conform to the Contract Document requirements, Contractor will be notified in writing of deficiencies. After correcting all deficiencies Contractor shall again initiate the procedures for final inspection as set forth above. The Project Manager will issue a Final Certificate for Payment following satisfactory inspection of the Work provided Contractor has delivered to the Project Manager the final corrected as-built Drawings and the final bill of materials, if any.

### **3.5 Liquidated Damages**

3.5.1 Execution of this Contract by Contractor shall constitute Contractor's acknowledgment that the County will sustain damages in the amount identified in Paragraph 3.5.2 below for each and every calendar day during which completion of the Work required is delayed beyond Substantial Completion or Final Completion. Contractor and County agree that such damages shall be presumed to be the damages actually sustained by the County as defined below, and that because of the nature of the Project, it would be impracticable or impossible to determine or extremely difficult to fix the actual damages.

3.5.2 If Contractor fails to achieve Substantial Completion or Final Completion of the Work by its applicable date, then the County shall be entitled to withhold from any amounts otherwise due Contractor or to be paid as a debt due the sum of **\$2,150.38** per day for each and every calendar day of unexcused delay "Liquidated Damages". The parties agree that such Liquidated Damages are not a penalty but rather a genuine pre-estimate of monetary damages sustained by the County for loss of revenue and/or increased project administration expenses related to this Contract because Contractor failed to perform and complete Work within the time fixed for completion or additional time granted pursuant to the provisions hereof. The assessment of Liquidated Damages are without prejudice to the County's rights of termination and Contractor's obligation to complete the Work.

3.5.3 Should Contractor fall behind the approved Work schedule; the County reserves the right to deduct Liquidated Damages based on an estimated period of late completion. The County need not wait until completion of Work to withhold Liquidated Damages from Contractor's progress payments.

### **3.6 Disclaimer of Consequential Damages**

The County shall not be liable to Contractor, whether in contract, tort, warranty or under any statute or on any other basis, for any consequential, incidental, indirect, special, punitive or exemplary damages suffered or incurred by Contractor in connection with this Contract, even if the County has been advised of the possibility of such damages. Consequential damages shall include, by way of example and without limitation, opportunity costs, loss of use of facilities or other assets, consequential damage claims of subcontractors, lost profits, lost savings, lost business, lost bonding capacity, lost financing, lost reputation or lost goodwill.

## **ARTICLE IV CONTRACT PRICE AND PAYMENT**

### **4.1 Contract Price**

4.1.1 This Contract is a LUMP SUM Contract. As compensation for satisfactory performance of the Work, the County shall compensate, and Contractor shall accept, as full and complete compensation for all the Work required herein a not-to-exceed Price of four million one thousand six hundred seventy-four dollars (\$4,001,674.00), in accordance with the breakdown as provided in Exhibit "A", the "Contract Price". The cost of any item of Work not covered by a specific Lump Sum shall be included in the Lump Sum price to which the item is most applicable.

4.1.2 If required by the County, Contractor shall have included unit prices in the base Lump Sum. Such unit prices shall apply to revisions to the Work as directed by the County in accordance with Article IX. Unit prices are "all-inclusive", including labor, material, supervision, tools, equipment, insurance, taxes, fringe benefits, coordination, engineering, overhead, profit, performance and payment bonds, and all other things necessary. Unit prices are fixed for the duration of the Contract and are not subject to escalation for any cause.

4.1.3 Value Engineering Options. The Contractor agrees to review and make recommendations for Value Engineering Options in addition to those elected by the County prior to award. Contractor shall provide the cost reduction associated with any proposed Value Engineering Options in a written proposal for consideration by the County. Value Engineering Options may include those related to changes in materials, equipment, and design as provided in the Technical Specifications. Contractor is required to provide and disclose any impacts that the County's election of any proposed Value Engineering Option will have on the Project so that the County may appropriately consider any proposed Value Engineering Options. If elected by the County, the election of the Value Engineering Option shall be provided for in a Change Order, which shall include specific details related to changes to Contract Price, Contract Time and the Scope of Work.

4.1.3.1 Additionally, the County may propose consideration of Value Engineering Options which the Contractor agrees to review and provide an associated proposal including any and all changes to Contract Price, Contract Time and Scope of Work which would be caused by the election of a proposed Value Engineering Option.

### **4.2 Schedule of Values**

4.2.1 Prior to the commencement of Work, Contractor shall submit to the County and to the Project Manager a Schedule of Values allocating the Contract Price to the various portions of the Work. Contractor's Schedule of Values shall be prepared in such form, with such detail, and supported by such data as the Project Manager or the County may require to substantiate its accuracy. Contractor shall not imbalance the Schedule of Values nor artificially inflate any element thereof. The violation of this provision by Contractor shall constitute a material breach of this Contract.

4.2.2 Upon approval by the County the Schedule of Values shall be used as a basis for Contractor's Application for Payment. The total of all payments in the Schedule of Values must at all times be equal to the Contract Price. No progress payment shall be made to Contractor until an acceptable Schedule of Values is submitted.

4.2.3 General conditions costs may be considered as a line item for the following items (break down required) (collectively the following shall be known as the General Conditions Costs):

- a) Contractor's field office personnel (full-time on-site)
- b) Construction office and storage facilities
- c) Utilities required to sustain field office and sanitary facilities
- d) Electrical power and water for construction
- e) Bonds and Insurance

4.2.4 Progress payments for general conditions costs will be based on the percentage of Work completed to date, except

bonds and insurance which may be requested in full. Separate payments for Shop Drawings and deposits for materials will not be allowed.

### **4.3 Measurement and Payment**

4.3.1 Contractor shall make all surveys necessary for determining all quantities of Work to be paid under this Contract. Copies of field notes, computations and other records made by Contractor for the purpose of determining quantities shall be furnished to the Project Manager upon request. Contractor shall notify the Project Manager prior to the time such surveys are made. The Project Manager may but shall have no obligation to witness and verify such surveys. Measurements and computations shall be made by such methods as the County may consider appropriate for the class of work measured. The dividing limits, lines or planes between adjacent items or classes of excavation, concrete, or other types of Work where not definitely indicated on the Drawings or in the Specifications shall be as determined by the County.

4.3.2 No payments of invoices (or portions thereof) shall, at any time, constitute approval or acceptance of the Work under this Contract, nor be a waiver by the County of any of the terms contained herein.

### **4.4 Progress Payments**

4.4.1 Prior to Contractor's submittal of the initial Application for Payment, Contractor shall have delivered the following documents. The County will not make any payment to Contractor until Contractor has submitted the following requirements:

- a) Schedule of Values
- b) Project Schedule
- c) Certified copy of recorded bond
- d) Insurance Certificates

4.4.2 On or before the tenth (10th) day of each calendar month, Contractor shall submit an Application for Payment to the Project Manager in such form and manner, and with such supporting data and content, as the Project Manager may require. Such Application for Payment shall be based on the amount of Work done or completed during the payment period which is defined as the first day of the preceding calendar month through the last day of the preceding calendar month. The Project Manager will review the Application for Payment to determine whether the quantity and quality of the Work is as represented in the Application for Payment and thereafter confirm to the County the amount properly owing to Contractor. Upon receipt by the County of the Project Manager's recommendation for payment, payments will be made in accordance with the Local Government Prompt Payment Act (Sections 218.70-218.80 of the Florida Statutes) less such amounts, if any, otherwise owing by Contractor to the County or which the County shall have the right to withhold. Any Application for Payment determined by the County not to be suitable for payment shall be modified and processed in accordance with the County's assessment.

4.4.3 In the event any dispute with respect to any payment or Application for Payment cannot be resolved between Contractor and the County's Project staff, Contractor may demand in writing a meeting with and review by the County's Purchasing Director. Such meeting and review shall occur within ten (10) business days of receipt by the County of Contractor's written demand. The Purchasing Director shall issue a written decision on the dispute within ten (10) business days of such meeting. This decision shall be deemed the County's final decision for the purpose of the Local Government Prompt Payment Act.

4.4.4 The County may withhold from each progress payment made to Contractor an amount not to exceed five (5%) percent of payment as retainage until final acceptance of all Work in accordance with Section 255.078 of the Florida Statutes. Any interest earned on retainage shall accrue to the benefit of the County. The County shall make prompt payment to Contractor, unless in accordance with Section 255.078(6) of the Florida Statutes, such funds are the subject of a good faith dispute, claim or demand by the County or Contractor.

4.4.5 Contractor warrants and guarantees that title to Work, materials, and equipment covered in any Application for Payment, whether incorporated in the Project or not, shall pass to the County no later than the time of payment and shall be free and clear of liens, claims, security interests or other encumbrances.

### **4.5 Application for Payment**

4.5.1 Contractor may make Application for Payment, at intervals of not more than once a month for Work satisfactorily

completed during the Project. Contractor shall submit with each Application for Payment an updated Project schedule acceptable to the Project Manager. Each Application for Payment shall clearly include:

- a) Contract Number;
- b) A unique Application for Payment number;
- c) Contractor's legal name and address;
- d) Taxpayer identification number (Contractor's federal employer identification number);
- e) Brief description of the completed Work, in accordance with Contractor's Schedule of Values;
- f) Original Contract Price including approved Change Order amounts; and,
- g) Preferred remittance address, if different from the mailing address.

The County may require any other information from Contractor that the County deems necessary to verify Contractor's Application for Payment. No later than ten (10) days after execution of this Contract or Notice to Proceed has been issued, the County will identify in a separate written notice the submittal requirements for Contractor's payment requests.

4.5.2 Delivered, stored or stockpiled materials may be included in an Application for Payment provided Contractor meets the following conditions:

- a) Materials are suitably and securely stored at the Jobsite or a bonded warehouse (acceptable to the County);
- b) An applicable purchase order or supplier's invoice is provided listing the materials in detail, cost of materials and identifying this specific Project by name; and
- c) The material is insured against loss or damage (from whatever source) or disappearance prior to incorporation into the Work.

4.5.2.1 Payments for such materials shall be at the sole discretion of the Project Manager, shall be based only upon the actual cost of the materials to Contractor, and shall not include any overhead or profit to Contractor.

4.5.3 Each Application for Payment shall be signed by Contractor and shall constitute Contractor's representation that the Work has progressed to the level for which payment is requested, that the Work has been properly installed or performed in full accordance with this Contract, and that Contractor knows of no reason why payment should not be made as requested. Contractor's final Application for Payment shall also be accompanied by a full and complete release and/or waiver of all liens complying with Section 713.20 of the Florida Statutes.

4.5.4 Contractor must remit undisputed payment due for labor, services, or materials furnished by Subcontractors and suppliers hired by Contractor, within ten (10) days after receipt of each progress payment from the County pursuant to Section 218.735 of the Florida Statutes. If necessary for the protection of the County, the County shall have the right, at its sole option, to make payment by joint check or by direct check to Contractor's Subcontractors or suppliers without advance notice to or consent of Contractor. If joint checks are issued following claims by Contractor's Subcontractors or suppliers, the County shall be entitled to an administrative fee of \$50.00 per check for the expense of processing each joint check. Any amounts paid directly to a Subcontractor or supplier will be deducted from payments made to, or amounts due or that may become due to, Contractor. The issuance of a joint check shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the County to repeat the procedure in the future.

4.5.5 No progress payment, nor any use or occupancy of the Project by the County, shall be interpreted to constitute approval or acceptance of any Work under this Contract, nor be considered a waiver by Contractor of any of the terms of this Contract.

4.5.6 The County's performance and obligation to pay under this Contract is contingent upon an appropriation of lawfully available funds by the Board of County Commissioners. The County shall promptly notify Contractor if the necessary appropriation is not made.

## **4.6 Withheld Payment**

4.6.1 The County may decline to make payment, may withhold funds otherwise payable and, if necessary, may demand the return of some or all of the amounts previously paid to Contractor, if:

- a) Any Claims are made against Contractor by the County or third parties, including Claims for liquidated damages or if reasonable evidence indicates the probability of the making of any such Claim;
- b) Any Claims are made against the County, the County's property or any other party indemnified hereunder which is or might be covered by Contractors Indemnification obligations under Section 12.2 below;
- c) Contractor fails to pay Subcontractors or others in full and on-time;
- d) Contractor fails to submit schedules, reports, or other information required under the Contract;
- e) Contractor fails to diligently prosecute the Work and maintain progress to assure completion within the Contract Time;
- f) Contractor persistently fails to fully and timely perform the Work in accordance with the Contract Documents;
- g) Defective or nonconforming Work is not remedied; or
- h) Contractor is in default of any other representation, warranty, covenant or performance obligation of this Contract.

4.6.2 If Claims or liens filed against Contractor or property of the County connected with performance under this Contract are not promptly removed by Contractor after receipt of written notice from the County to do so, the County may remove such Claims or liens and all costs in connection with such removal shall be deducted from withheld payments or other monies due, or which may become due, to Contractor. If the amount of such withheld payments or other monies due Contractor under the Contract is insufficient to meet such cost, or if any Claim or lien against Contractor is discharged by the County after final payment is made, Contractor and its surety or sureties shall promptly pay the County all costs (including attorney's fees) incurred thereby regardless of when such Claim or lien arose.

#### **4.7 Final Payment**

4.7.1 Upon Contractor's receipt of the Final Certificate for Payment, Contractor may submit a final invoice provided the following has been completed or submitted with such final invoice:

- a) Complete all items applicable to the Work identified in Paragraph 3.3.2;
- b) Complete all Work listed on the punch list prepared in accordance with Paragraph 3.3.4;
- c) Consent of Surety for final payment and/or retainage;
- d) Final Waiver and Release of Claim signed by Contractor;
- e) Submittal of final corrected as-built (record) Drawings;
- f) Settlement of Liquidated Damages, as applicable; and
- g) Settlement of liens and Claims, if any.

4.7.2 Acceptance of Final Payment shall constitute a waiver of all Claims against the County by Contractor except for those Claims previously made in writing against the County by Contractor, pending at the time of Final Payment, and identified in writing by Contractor as unsettled at the time of its request for Final Payment.

4.7.3 In the event Contractor fails to make a Request for Final Payment, or to resubmit a final Application for Payment within ninety (90) days after being requested to do so, the County may deem any and all retained funds to be abandoned property and shall give notice of abandonment to Contractor. The County may set off against the final payment any amounts due to County from Contractor arising out of or under this or any other Contract or Contract between them.

### **ARTICLE V CONTRACTOR RESPONSIBILITIES**

#### **5.1 Performance**

5.1.1 Contractor warrants that, to the best of its knowledge, there is no pending or threatened action, proceeding, or investigation, or any other legal or financial condition, that would in any way prohibit, restrain, or diminish Contractor's ability to satisfy its contractual obligations hereunder.

5.1.2 Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved Shop Drawings, Product Data or samples for such portion of the Work. If Contractor performs any portion of the Work where Contractor knows or should know such Work involves a recognized error, inconsistency or omission in the Contract Documents without notice to the Project Manager and the County, Contractor shall bear responsibility for such performance and shall bear the cost of correction.

5.1.3 Contractor shall perform the Work strictly in accordance with this Contract.

5.1.4 Contractor shall confine its operations to the Jobsite or such other land and areas identified in and permitted by the Contract Documents. Contractor shall assume full responsibility for any damage to any such land or area, to the County or occupant thereof, or of any adjacent land or areas, resulting from the performance of the Work. Should any Claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the Claim by other dispute resolution proceeding or at law. Contractor shall, to the fullest extent permitted by Applicable Law, indemnify and hold harmless the County, and its officers, directors, agents and employees and anyone directly or indirectly employed by them from and against Claims, costs, losses, and damages arising out of or resulting from any Claim or action, legal or equitable, brought by any such owner or occupant against the County or any other party indemnified hereunder to the extent caused by or based upon Contractor's or a Subcontractor's performance of the Work.

5.1.5 Contractor is solely and exclusively responsible for supervising all workers at the Jobsite. Contractor shall supervise and direct the Work using Contractor's best skill, effort and attention. Contractor shall be responsible to the County for any and all acts or omissions of Contractor, its employees and others engaged in the Work on behalf of Contractor.

5.1.6 Contractor and the Work must comply with all Applicable Law and the requirements of any applicable grant agreements.

## **5.2 Authorized Representative**

5.2.1 Prior to commencing Work, Contractor shall designate in writing a competent, authorized representative(s) acceptable to the County to represent and act for Contractor ("Authorized Representative"). Absent such written designation, Contractor's Jobsite superintendent shall be deemed Contractor's Authorized Representative and s/he shall be authorized to receive and accept any and all communications from the County or the County's Project Manager. All communications given to the Authorized Representative shall be binding upon Contractor. An Authorized Representative may be added, removed or changed upon prior written notice given pursuant to Section 14.21 titled "Written Notice".

5.2.2 At all times while performing the Work and Warranty Work, Contractor shall have one or more Authorized Representatives present on the Jobsite. Such Authorized Representative shall be capable to effectively communicate with the County or the County's Project Manager, execute and enforce applicable Contract Documents and address Jobsite safety and environmental requirements.

## **5.3 Environmental, Safety and Health**

5.3.1 Safety and Protection. Contractor shall be solely and exclusively responsible for conducting operations under this Contract to avoid risk of harm to the health and safety of persons and property and for inspecting, supervising and monitoring all equipment, materials (whether in storage on or off the Jobsite), work practices and safety precautions (including but not limited to adequate maintenance of traffic) used in the Work to ensure compliance with its obligations under this Contract. Contractor shall provide or cause to be provided necessary training and furnish all safety construction equipment/tools, including OSHA compliant and ANSI certified personal protective equipment as appropriate and necessary for the performance of the Work, to its subcontractors of every tier and enforce the use of such training and safety construction equipment/tools.

5.3.2 Compliance. Contractor shall comply with all Applicable Laws bearing on the safety of persons or property, or their protection from damage, injury or loss including compliance with applicable permits, Project plans and approvals. To the extent allowed by law, Contractor shall assume all responsibility and liability with respect to all matters regarding the safety and health of its employees and the employees of Contractor's subcontractors and suppliers of any tier, with respect to the Work.

5.3.3 Stop Work Authority. Notwithstanding the foregoing, the County reserves the right to direct Contractor to stop Work and correct an unsafe condition at any time that any person present at the Jobsite identifies any unsafe condition or action. For this purpose only, any person at the Jobsite is authorized to act on behalf of the County.

5.3.4 Safety Representative. Prior to commencing Work, Contractor shall designate in writing a member(s) of its Jobsite construction team as its Safety Representative. Such Safety Representative shall be acceptable to the County and shall have responsibility for implementing all safety procedures, including OSHA, responsibility for the prevention of accidents, authority for monitoring safety of the Work, authority to correct unsafe conditions or acts by its employees or Subcontractors, the ability to oversee compliance with and address environmental requirements, and coordinate with other



on-site contractors and subcontractors on safety and environmental matters required for the Work. In the absence of the required written designation, this person shall be Contractor's Superintendent.

5.3.5 Safety Reporting Requirements. Contractor shall maintain accident and injury records as required by Applicable Law. Such records will be made available to the County upon request. Contractor shall immediately report to the County any death, injury or damage to property incurred or caused by Contractor's employees and employees of Contractor's subcontractors and suppliers of any tier.

5.3.6 Drug Free Workplace. By signing this Contract, Contractor agrees to maintain a healthy and productive workforce and safe working conditions thru compliance with the Drug-Free Workplace Act (Chapter 112, Florida State Statutes). Contractor's personnel shall not possess, use, manufacture, distribute or be under the influence of while on the Jobsite (or any other location where the provisions of this Contract applies) alcoholic beverages and/or illegal drugs or any other "Drug" as such term is defined in the Drug-Free Workplace Act.

5.3.7 Occupational Safety and Health Act (OSHA). Contractor warrants that all materials, equipment, services, etc., delivered or provided to the County shall conform in all respects to the standards set forth in the Occupational Safety and Health Act (OSHA) of 1970 as amended and the failure to comply will be considered a breach of this Contract. Contractor further certifies that if material, equipment, service, etc., delivered or provided to the County is subsequently found to be deficient in any OSHA requirement in effect on date of delivery or service fulfillment date, all costs necessary to bring the material, equipment, service, etc., into compliance with the aforementioned requirements shall be borne by Contractor.

5.3.8 Toxic Substances/Federal Hazard Communication "Right to Know and Understand" Regulations  
The Federal "Right to Know and Understand" Regulation (also known as the Hazard Communication / Globally Harmonized System of Classification and Labeling of Chemicals (GHS) implemented by OSHA requires employers to inform their employees of any toxic substances to which they may be exposed in the workplace, and to provide training in safe chemical storage, labeling, handling practices and emergency procedures.

5.3.8.1 Accordingly, Contractor is required to provide completed Safety Data Sheets (SDS) for each hazardous substance provided to the County under this Contract. This includes hazardous substances that are not directly included in the Contract Documents, but are included in the goods or services provided by Contractor to the County. The SDS for each substance must be sent to the County's Project Manager and must also be sent to:

St. Johns County, a political subdivision of the State of Florida  
500 San Sebastian View  
St. Augustine, FL 32084  
Attn: Risk Management

5.3.8.2 In the event that hazardous material is improperly handled or stored by Contractor, its subcontractors, any sub-subcontractors, or any employee or agent of any of the aforementioned which results in contamination of the Jobsite, Contractor shall immediately notify the County and the appropriate governmental authority and shall take whatever action is necessary or desirable to remediate the contamination at Contractor's sole cost and expense. Further, Contractor shall indemnify and hold harmless the County from any and all cost, expense, action, or liability whatsoever resulting from such contamination and/or remedial activities. The indemnity provisions of this section shall survive the expiration or earlier termination of this Contract.

## **ARTICLE VI PROJECT MANAGER**

### **6.1 Project Manager Responsibilities**

6.1.1 The County shall designate as its representative a Project Manager who shall be fully acquainted with the Project. The Project Manager shall be the County's representative from the Effective Date of this Contract until final payment has been made. The Project Manager shall be authorized to act on behalf of the County only to the extent provided in this Article VI.

6.1.2 The County and Contractor shall communicate with each other in the first instance through the Project Manager.

6.1.3 The Project Manager shall be the initial interpreter of the requirements of the Drawings and Specifications and the

judge of the performance there under by Contractor. The Project Manager shall render written or graphic interpretations necessary for the proper execution or progress of the Work with reasonable promptness on request of Contractor.

6.1.4 The Project Manager shall review Contractor's Applications for Payment and shall confirm to the County for payment to Contractor, those amounts then due to Contractor as provided in this Contract.

6.1.5 The Project Manager shall have authority to reject Work, which is defective or does not conform to the requirements of this Contract. If the Project Manager deems it necessary or advisable, the Project Manager shall have authority to require additional inspection or testing of the Work for compliance with Contract requirements at Contractor's expense.

6.1.6 The Project Manager shall review and accept, or take other appropriate action as necessary, concerning Contractor's submittals including but not limited to Shop Drawings, Product Data and Samples. Such review, acceptance or other action shall be for the sole purpose of determining conformance with the design concept and information given through the Contract Documents.

6.1.7 The Project Manager may authorize minor changes in the Work by field order as provided elsewhere herein. The Project Manager does not have authority to approve adjustments to the Contract Price or Contract Time. If at any time Contractor believes that acts or omissions of the County constitute a change to the Work, Contractor shall submit a written notice in accordance with the requirements of Article IX.

6.1.8 The Project Manager shall, upon written request from Contractor, conduct inspections to determine the date of Substantial Completion and the date of Final Completion, shall receive and forward to the County for the County's review and records, written warranties and related documents required by this Contract and shall issue a Final Certificate for Payment upon compliance with the requirements of this Contract.

6.1.9 The Project Manager's decision in matters relating to aesthetic effect shall be final if consistent with the intent of this Contract.

## **6.2 Field Orders**

The Project Manager shall have authority to order minor changes in the Work not involving a change in the Contract Price or Contract Time and not inconsistent with the intent of this Contract. Such changes shall be affected by written field order and shall be binding upon Contractor. Contractor shall carry out such field orders promptly.

## **ARTICLE VII SUBCONTRACTORS**

### **7.1 Award of Subcontracts**

7.1.1 Contractor shall be responsible for all Work performed under the Contract Documents. All persons engaged in the Work of the Project are the responsibility and under the control of Contractor. Contractor shall furnish the Project Manager, in writing, the names of persons or entities proposed by Contractor to act as a Subcontractor on the Project. The Project Manager shall promptly reply to Contractor, in writing, stating any objections the Project Manager may have to such proposed Subcontractor. Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the Project Manager has made a timely objection.

7.1.2 Contractor shall give personal attention to fulfillment of the Contract and shall keep the Work under Contractor's control. When any Subcontractor fails to execute a portion of the Work in a manner satisfactory to the County, Contractor shall remove such Subcontractor immediately upon written request from the County, and the Subcontractor shall not again be employed on the Project. The County will not entertain requests to arbitrate disputes among Subcontractors or between Contractor and Subcontractor(s) concerning responsibility for performing any part of the Work.

## **ARTICLE VIII CONTRACT DISPUTES/CLAIMS**

### **8.1 Contract Claims**

8.1.1 If any dispute between the County and Contractor arises under this Contract and such dispute cannot be resolved by good faith negotiations at the field level between the Project Managers of the Contractor and County, such dispute shall be promptly escalated to the Senior Representatives of the Parties, upon request of either party, who shall meet as soon as conveniently possible, but in no case later than fourteen (14) calendar days after such a request is made, to attempt to resolve

such dispute or disagreement. Five (5) calendar days prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving the dispute or disagreement.

8.1.1.1 The Senior Representative for the County shall be the Director, or designee, of the County's Public Works Department.

8.1.1.2 The Senior Representative for the Contractor shall be the supervisor of the Project Manager, or a principal of the Contractor.

8.1.2 If after meeting, the Senior Representatives determine that the dispute or disagreement cannot be resolved on terms satisfactory to both parties, the Contractor shall submit a Contract Claim as provided herein.

8.1.3 Prior to filing a Contract Claim, Contractor shall first exhaust all remedies set forth in the Contract Documents. Claims arising from this Contract shall be filed with the Purchasing Director within five (5) business days of exhausting all remedies set forth above. Pending final resolution of a dispute or claim, unless otherwise agreed in writing by both parties, the Contractor is required to proceed with performance of the Work and maintain effective progress to complete the Work within the Contract Time set forth herein. The Contract Claim shall include, at a minimum, the following:

- a) The name and address of the Contractor and any legal counsel; and
- b) The Contractor's address to which the County's rendered decisions shall be sent; and
- c) Identification, and a copy, of the final adverse decision or document that is the subject of the Contract Claim and any exhibits, evidence or documents which the Contractor deems applicable to the issues raised in the Claim; and
- d) Identification of the administrative remedies provided for in the Contract that were pursued prior to the Claim and the outcome; and
- e) A statement of the grounds for each issue raised in the Contract Claim to be reviewed and the applicable provisions of the Contract, as well as any applicable Laws, or other legal authorities which the Contractor deems applicable to the Claim.

8.1.4 During the Purchasing Director's review of the Contract Claim, the Purchasing Director may request additional information from the project team of both parties. The parties must provide the requested information within the time period set forth in the request. Failure of either party to timely comply may result in resolution of the Claim without consideration of the requested information.

8.1.5 The Purchasing Director shall render a decision on the Contract Claim within twenty-one (21) calendar days of the deadline for receipt of all requested information. The written decision of the Purchasing Director shall be sent to the Contractor at the address provided in the Contract Claim, or as otherwise agreed to by the parties.

8.1.6 The decision for any Contract Claim by the Purchasing Director may be appealed by the Contractor to the County Administrator. Contractor must submit their appeal to the County Administrator, including any and all information, documentation, backup data, or other supplemental facts or figures within five (5) business days of receipt of the Purchasing Director's decision. Failure by the Contractor to submit an appeal within the prescribed timeframe shall be a waiver of a right to appeal the rendered decision. The appeal shall include any and all information, documentation, and data relative to the Contract Claim and subsequent appeal. The County Administrator shall render a decision within thirty (30) calendar days of receipt of all information. The County Administrator's decision shall be considered final, unless Contractor takes legal action in Circuit Court.

## **ARTICLE IX CHANGES IN THE WORK**

### **9.1 General**

9.1.1 The County may, at any time, without invalidating this Contract and without notice to sureties, direct changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, by Change Order or by field order. Contractor agrees to promptly comply with such orders and proceed with the Work, which shall be performed under the applicable requirements of the Contract Documents. Contract Time and Contract Price will be adjusted, in accordance with Sections 9.2 and 9.3 below, by written Change Order for changes which materially increase or decrease the cost of or time for performance of the Work.

9.1.2 If at any time Contractor believes that acts or omissions of the County constitute a change to the Work, Contractor shall submit a written notice to the Project Manager explaining in detail the basis for the change request. Contractor's written notice must be furnished within five (5) days of the commencement of the event giving rise to the claim or Contractor's knowledge of the claim, and the notice shall state the general nature and cause of the claim. Thereafter, within twenty (20) days after the termination of the event giving rise to the claim or Contractor's knowledge of the claim, Contractor shall submit written notice of the extent of the claim with supporting information and documentation to the Project Manager and County. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT TIME OR CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.** Pending final resolution of any such claim request, Contractor shall diligently proceed with performance of this Contract regardless of any dispute concerning performance of the Work or the amount Contractor is to be paid for such Work.

## **9.2 Changes in the Contract Time**

9.2.1 The Contract Time will be extended by Change Order in an amount equal to time lost on critical Work items due to delays beyond the control of and through no fault or negligence of Contractor if a claim for an extension is submitted in accordance with Section 9.1.2 above.

9.2.2 If Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as a direct result of unusually adverse weather conditions not reasonably anticipated, or any other causes beyond Contractor's reasonable control and not attributable to Contractor or Contractor's Subcontractor's actions or failure to act, then the date for achieving Substantial Completion of the Work may be extended for such reasonable time as the Project Manager may determine. An extension of Contract Time shall be Contractor's sole and exclusive remedy for delay unless the delay is solely caused by fraud, bad faith or active interference on the part of the County or its representatives. In no event shall Contractor be compensated for interim delays that do not extend the Contract Time.

9.2.3 Extensions to the Contract Time for delays caused by the effects of inclement weather shall be submitted as a request for a change in the Contract Time pursuant to paragraph 9.1.2 above. Time extensions are justified only when rain, other inclement weather conditions, or related adverse soil conditions result in Contractor's inability to work at least fifty percent (50%) of the normal workday on controlling items of Work identified on the accepted schedule or updates to that schedule.

9.2.4 Contractor shall, at no cost to the County, take all precautions necessary to secure the Project Jobsite from any damage that may be caused by all threatened storm events, regardless of whether the County has given notice of same. Compliance with any specific storm event precautions will not constitute additional work. Suspension of the Work caused by a threatened or actual storm event, regardless of whether the County has directed such suspension, will entitle Contractor to additional Contract Time only and shall not give rise to a claim for a change in the Contract Price.

### **9.3.2.5 Force Majeure Events**

9.2.5.1 The Contractor shall not be held responsible for any delay or failure in performance of any part of this Contract to the extent such delay or failure is caused by a Force Majeure Event, as defined herein, so long as the Contractor's delay is not caused by the Contractor's own fault or negligence. Notwithstanding the foregoing, the Contractor cannot claim Force Majeure for any emergency, exigency, or "act of God" that is already contemplated in the Work, or any other performance by the Contractor, that is contemplated in this Contract, or that in any way existed or was reasonably foreseeable or within the control of the Contractor at the time this Contract was executed.

9.2.5.2 In order to claim delay pursuant to this provision, Contractor must notify the County, in writing, within five (5) business days of the beginning of the Force Majeure Event, which Contractor claims caused the delay or failure by the Contractor to perform under this Contract.

9.2.5.3 If Contractor's delay or failure, caused by a Force Majeure Event, extends beyond a period of thirty (30) calendar days, from the beginning of the Force Majeure Event, the County shall have the right to terminate this Contract, in accordance with the provisions of this Contract, and shall only be liable to the Contractor for any Work performed and validated (if required for payment hereunder) prior to the date of termination of this Contract.

9.2.5.4 If the Contractor's delay is confirmed by the County to be caused by a Force Majeure Event, the County may, upon written request of the Contractor, agree to equitably adjust the provisions of this Contract, including price, performance, and completion time, as may be affected by such delay. However, it is expressly understood by the

Contractor that the County is not obligated to make any such adjustments to the provisions of this Contract, and shall do so only if it serves the best interest of the County. This provision shall not be interpreted to limit the County's right to terminate for convenience.

### **9.3 Changes in the Contract Price**

9.3.1 In connection with any claim by Contractor against the County for compensation in excess of the Contract Price, any liability of the County for Contractor's costs shall be strictly limited to direct costs incurred by Contractor and shall in no event include indirect costs or consequential damages of Contractor.

9.3.2 Any change in the Contract Price resulting from a Change Order shall be determined as follows:

- a) By mutual acceptance of a lump sum increase or decrease in costs. Upon the Project Manager's request, Contractor shall furnish a detailed estimate of increased or decreased costs, together with cost breakdowns and other support data as the Project Manager may reasonably request.
- b) By Unit Prices stated in the Contract Documents, or subsequently agreed upon payment.
- c) By a manner or method mutually agreed by the County and Contractor.

9.3.3 If no mutual agreement occurs between the County and Contractor, then the change in the Contract Price, if any, shall than be determined by the Project Manager on the basis of the reasonable expenditures or savings of those performing, deleting or revising the Work attributable to the change, including, in the case of an increase or decrease in the Contract Price, a reasonable allowance for direct job site overhead and profit. In such case, Contractor shall present, in such form and with such content as the County or the Project Manager requires, an itemized accounting of such expenditures or savings shall be limited to the following: reasonable costs of materials, supplies, or equipment including delivery costs, reasonable costs of labor, including social security, unemployment insurance, fringe benefits required by a pre-existing Contract or by custom, and workers' compensation insurance, reasonable costs of premiums for all bonds and insurance, permit fees, and sales, use or other taxes paid by Contractor that are directly attributable to the changed Work. In no event shall any expenditure or savings associated with Contractor's home office or other non-Jobsite overhead expenses be included in any change in the Contract Price. Pending final determination of reasonable expenditures or savings to the County, payments shall be made to Contractor based on the Project Manager's recommendation for payment.

9.3.4 Costs which will not be allowed or paid in Change Orders or other claims under this Contract include, but are not limited to, the costs of preparing or reviewing change request/claims or proposed Change Orders, change request/claim consulting costs; lost revenues; lost profits; lost income or earnings; interest cost of any type other than those mandated by statute; rescheduling costs; lost earnings; loss of other business; or the costs of Contractor representatives visiting the Jobsite or participating in meetings with the County. The County shall not be liable to Contractor for claims of third parties, including Subcontractors, unless and until liability of Contractor has been established therefore in a court of competent jurisdiction.

9.3.5 In the event there is an unforeseeable increase to the cost of project materials during the course of this Contract, which exceeds twenty percent (20%), the Contractor must provide documentation demonstrating the original amount of the quoted materials, the updated quote for materials, and two (2) or more additional quotes from alternate sources for the materials demonstrating the Contractor is providing the best value to the County. The County will review the information provided in accordance with Article IX.

### **9.4 Acceptance of Change Orders**

Contractor's written acceptance of a Change Order shall constitute a final and binding Contract to the provisions thereof and a waiver of all claims in connection therewith, whether direct, indirect, or consequential in nature.

### **9.5 Notice to Sureties**

Contractor shall notify and obtain the timely consent and approval of Contractor's surety with reference to all Change Orders if such notice, consent or approval is required by Contractor's surety or by law. Contractor represents and warrants to County that Contractor is solely liable and responsible to so notify and obtain any such consent or approval. The Contractor is to provide certification from the surety that the amount of a change order has been incorporated into the bond to cover the additional scope of work and/or cost associated with the Change Order.

### **9.6 Differing Site Conditions**

If during the course of the Work, Contractor encounters (1) subsurface or concealed conditions at the Project's Jobsite that differ materially from those shown in the Contract Documents and from those ordinarily encountered and generally recognized as inherent in work of the character called for in this Contract; or (2) unknown physical conditions of the Project's Jobsite, of an unusual nature, which differ materially from that ordinarily encountered and generally recognized as inherent in work of the character called for in this Contract, then Contractor, without disturbing the conditions and before performing any Work affected by such conditions, shall, within twenty-four (24) hours of their discovery, notify the Project Manager in writing of the existence of the aforesaid conditions. The Project Manager shall, within two (2) business days after receipt of Contractor's written notice, investigate the site conditions identified by Contractor. If, in the sole opinion of the Project Manager, the conditions do materially so differ and cause an increase or decrease in Contractor's cost of, or the time required for, the performance of any part of the Work, whether or not charged as a result of the conditions, the Project Manager may recommend an equitable adjustment to the Contract Price, or the Contract Time, or both. If Project Manager and Contractor cannot agree on an adjustment in the Contract Price or Contract Time, the adjustment shall be referred to the Purchasing Director for determination in accordance with the provisions of Paragraph 1.1.6. No request by Contractor for an equitable adjustment to this Contract under this provision shall be allowed unless Contractor has given written notice to the Project Manager in strict accordance with the provisions of this Article. **No request for an equitable adjustment or change to the Contract Price or Contract Time for differing site conditions shall be allowed if made after the date certified by the Project Manager as the date of Substantial Completion.**

The failure by Contractor to provide written notice as provided in this Paragraph 9.6 shall constitute a waiver by Contractor of any Claim arising out of or relating to such concealed or unknown condition.

## **ARTICLE X UNCOVERING WORK, STOPPING WORK, AND ACCEPTING DEFECTIVE OR NONCONFORMING WORK**

### **10.1 Uncovering Work**

10.1.1 No Work or portion of Work shall be covered until inspected by the County as required by the Contract Documents. If any of the Work is covered contrary to the request or direction of the County or the Project Manager or contrary to the requirements of the Contract Documents, Contractor shall, upon written request, uncover it for the Project Manager's inspection and subsequently cover the Work in accordance with the Contract Documents without adjustment to the Contract Time or Contract Price. The provisions and obligations set forth herein shall apply even if the County ultimately determines (after uncovering and inspection) that the underlying Work in question conforms to the requirements of the Contract Documents.

10.1.2 Should the County wish to either (i) re-inspect a portion of the Work that has been covered by Contractor in compliance with Paragraph 9.1.1, above, or (ii) inspect a portion of the Work that has been covered by Contractor which is not required by the Contract Documents to be observed or inspected prior to its being covered and which the County did not specifically request to observe prior to its being covered, Contractor shall uncover the applicable portion of the Work upon written request. If the County determines that the Work uncovered conforms to the requirements of the Contract Documents, then the County will pay the costs of uncovering and replacement of the cover through a Change Order and will adjust the Contract Time by Change Order if the uncovering and replacement Work extends the most current Substantial Completion or Final Completion date, as applicable. If, however, the County determines that the Work uncovered does not conform to the requirements of the Contract Documents, then Contractor shall pay the costs of uncovering and replacement and shall not be entitled to an adjustment of the Contract Price.

### **10.2 Right to Stop Work**

If the Work is defective, or Contractor fails to supply sufficient skilled workers, suitable materials, or equipment or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the County, acting through the Project Manager, may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. The County's right to stop Work, or any portion thereof, shall not give rise to any duty on the part of the County to exercise this right for the benefit of Contractor or any other party.

### **10.3 County May Accept Defective or Nonconforming Work**

If the County chooses to accept defective or nonconforming Work, the County may do so. In such events, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Work had it not been constructed in such manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to

compensate the County for its acceptance of defective or nonconforming Work, Contractor shall, pay the County such remaining compensation for accepting defective or nonconforming Work.

## **ARTICLE XI CONTRACT SUSPENSION AND TERMINATION**

### **11.1 Suspension**

The County may, by written notice, order Contractor to suspend, delay or interrupt Work, in whole or in part, for a period of time as the County may determine. If such suspension delays Contractor's ability to meet the authorized Contract Time, Contractor will be granted an extension of time as reasonably agreed by both parties. Contractor shall not be entitled to an adjustment to the Contract Time to the extent that performance is, was or would have been so suspended, delayed or interrupted by another cause, act or omission for which Contractor is responsible. Notwithstanding anything to the contrary in this Contract and, in the event any such suspension exceeds ninety (90) days, Contractor may, upon ten (10) days written notice to the County, terminate performance under this Contract and recover from the County an equitable adjustment in accordance with Section 9.3 above.

### **11.2 Termination**

11.2.1 The County may by written notice to Contractor terminate the Work under this Contract in whole or in part at any time for the County's convenience or for the default of Contractor.

11.2.2 The County may terminate this Contract, in whole or in part, for its convenience upon thirty (30) calendar days written notice to the Contractor. If the termination is for the convenience of the County, an equitable adjustment in the compensation to be paid to the Contractor may be made based upon the cost for completed Work, Work in progress, and the substantiated, reasonable and actually incurred costs associated with termination, including demobilization costs and amounts due in settlement of terminated contracts with Subcontractors. No amount shall be allowed for anticipated profit or unperformed work.

11.2.3 Contractor may terminate this Contract, for any reason up to sixty (60) calendar days written notice, provided that any outstanding Work is completed by Contractor, or Contractor's Subcontractors. Contractor further agrees to cooperate fully and assist the County, upon request, in order to complete any Work under this Project. In such event, the County shall compensate the Contractor as mutually agreed in writing for any such Work after termination.

11.2.4 The County may terminate this Contract, in whole or in part, for cause (or "default"). In the event of Contractor's default, the County shall issue a Notice of Default to the Contractor, articulating the items which the County finds to be in default of the requirements of this Agreement. Contractor shall have ten (10) calendar days from receipt of the Notice of Default to remedy deficiencies or submit, in writing, an acceptable plan for remedying the deficiencies identified in said notice. If Contractor fails to remedy such deficiencies, or to submit an acceptable plan for remedying such deficiencies, to the satisfaction of the County within the stated time period, the County shall issue a Notice of Termination, and take over and prosecute the Work to completion. In such case, Contractor shall be liable to the County for all reasonable additional costs incurred by the County in completion of the Work.

11.2.5 Upon receipt of such termination notice Contractor shall immediately stop all Work and shall immediately cause any and all of its Subcontractors and material suppliers at any tier, to immediately stop all work, leaving the construction Site in a safe and secured condition. Contractor shall not be paid for any work performed or costs incurred after the termination date that reasonably could have been avoided. The County may direct Contractor to assign Contractor's right, title and interest under terminated orders or subcontracts to its designee.

11.2.6 Contractor shall not remove from the construction Jobsite any materials, equipment, plant or tools that have been paid for by County pursuant to this Contract. Contractor hereby grants the County a free and unimpeded right of access to Contractor's facilities, which shall survive any termination of the Contract, for the purpose of permitting the County to take control of and remove any Work, including but not limited to any Work for which title has vested in the County.

11.2.7 For purposes of this Termination provision, Contractor shall be deemed in default if Contractor (1) persistently or repeatedly refuses or fails to perform the Work in a timely manner, (2) fails to supply enough properly skilled Workers, supervisory personnel or proper equipment or materials, (3) fails to make prompt payment to Subcontractors, or for materials or labor, (4) becomes insolvent or becomes the subject of voluntary or involuntary bankruptcy proceedings, (5) persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or (6) breaches or

violates a material provision of this Contract. If the termination is attributable to the default of Contractor, the County shall have the right, without prejudice to any other right or remedy, to take possession of the construction Jobsite and of all materials, equipment, tools, construction equipment and machinery thereon owned by Contractor and may finish the Work by whatever methods it may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until the Work is finished.

11.2.8 If the unpaid balance of the Contract Price less any liquidated damages due under this Contract, exceeds the cost of finishing the Work, including compensation for the Project Manager's additional services and expenses made necessary thereby, Contractor shall pay the difference to the County. This obligation for payment shall survive the termination of the Contract.

11.2.9 If, after termination by the County for Contractor's default, it is determined by a Court of competent jurisdiction that Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties, including adjustment of the Contract Price, will be the same as if the termination had been issued for the convenience of the County, as provided under Paragraph 11.2.4 above.

## **ARTICLE XII WARRANTY AND INDEMNITY**

### **12.1 Warranty**

12.1.1 Contractor warrants and guarantees to the County that all labor furnished to progress the Work under this Contract shall be competent to perform the tasks undertaken and that the product of such labor shall yield only first-class results and that all materials and equipment furnished under this Contract shall be of good quality, free from faults and defects and in strict conformance with the Contract Documents.

12.1.2 Contractor warrants all materials, equipment and labor it furnishes or performs under this Contract against all defects in design, materials and workmanship for a period of one year (or the period of time in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) from and after the date of Final Completion. Contractor shall within ten (10) Days after being notified in writing by the County of any defect in the Work or non-conformance of the Work (Warranty Work), commence and prosecute with due diligence all Work necessary to fulfill the terms of the warranty at its sole cost and expense. Contractor shall act sooner as requested by the County in response to an emergency. In addition, Contractor shall, at its sole cost and expense, repair and replace any portions of the Work (or work of other contractors) damaged by its Warranty Work or which becomes damaged in the course of repairing or replacing Warranty Work. For any Work so corrected, Contractor's obligation hereunder to correct Warranty Work shall be reinstated for an additional one-year period, commencing with the date of acceptance of such corrected Work.

12.1.3 Contractor shall perform such tests as the County may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract Documents. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstatement of equipment and materials necessary to gain access, shall be the sole responsibility of Contractor.

12.1.4 All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the Work, whether express or implied, are deemed to be obtained by Contractor for the benefit of the County, regardless of whether or not such warranties and guarantees have been transferred or assigned to the County by separate Contract and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of the County.

12.1.5 In the event that Contractor fails to perform its obligations under this Warranty Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of the County, the County shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the County for any expenses incurred hereunder upon demand.

12.1.6 Failure on the part of the County to reject defective, non-conforming or unauthorized Work shall not release Contractor from its contractual obligations, be construed to mean acceptance of such Work or material by the County, or, after Final Completion, bar the County from recovering damages or obtaining such other remedies as may be permitted by law.



12.1.7 No adjustment in the Contract Time or Contract Price will be allowed because of delays in the performance of the Work as a result of correcting defective, non-conforming or unauthorized Work.

12.1.8 County and Contractor agree that the provisions of Florida Statute Chapter 558 shall not apply to this Contract.

## **12.2 Indemnity**

12.2.1 Contractor shall indemnify and hold harmless the County and its officers and employees (“Indemnified Party”), from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney’s fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in the performance of this Contract.

12.2.2 To the extent permitted by, and in accordance with Section 725.06 of the Florida Statutes, Contractor further agrees that “damages, losses and costs”, includes fines, citations, court judgments, insurance claims, restoration costs or other liability, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in the performance of this Contract.

12.2.3 To the extent permitted by, and in accordance with Section 725.06 of the Florida Statutes, for purposes of indemnity, the “persons employed or utilized by Contractor” shall be construed to include, but not be limited to, Contractor, its staff, employees, subcontractors, all deliverers, suppliers, furnishers of materials or services or anyone acting for, on behalf of, or at the request of Contractor.

12.2.4 In Claims against any person or entity indemnified hereunder by an employee of Contractor, any Subcontractor, or subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section 11.2 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any Subcontractor or subcontractor under any workers’ compensation acts, disability benefits acts or other employee benefit acts.

12.2.5 Contractor’s indemnity and hold harmless obligations hereunder shall extend to all Claims against the County by any third party or third-party beneficiary of this Contract and all liabilities, damages, losses and costs related thereto.

12.2.6 This indemnification will not be valid in the instance where the loss is caused by the gross negligence, or willful, wanton or intentional misconduct of any Indemnified Party.

12.2.7 If any provision(s), or portion(s) of a provision(s) of this Section, or the application thereof to any person or circumstance shall, to any extent, be held to be invalid, illegal or unenforceable for any reason whatsoever, the validity, legality and enforceability of the remaining provision(s), or part of the provision(s), shall not in any way be affected or impaired thereby; and shall be interpreted to the fullest extent possible to be enforceable and to give effect to the intent manifested by the provision(s), or portion(s) thereof, held invalid, illegal or unenforceable.

12.2.8 Contractor shall further indemnify and hold harmless the County its officers and employees from and against all Claims arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents and shall defend such Claims in connection with any alleged infringement of such rights.

12.2.9 The indemnification provisions of this Section 12.2 shall survive expiration or earlier termination of this Contract.

## **ARTICLE XIII INSURANCE AND BONDS**

### **13.1 Contractor’s Insurance Requirements**

13.1.1 All insurance policies shall be satisfactory to the County and be issued by companies authorized and duly licensed to transact business in the State of Florida. Contractor shall furnish proof of insurance to the County prior to execution of this Contract. No Work shall commence under this Contract until Contractor has obtained all insurance coverages required under this section. Certificates of insurance shall clearly indicate Contractor has obtained insurance of the type, amount, and classification as required by this Contract. Required insurance coverage shall be maintained in force, including coverage for Additional Insureds, until Final Completion of all Work including Warranty Work.

13.1.2 No less than ten (10) days written notice shall be provided to the County prior to cancellation, non-renewal or any material change of required insurance policies. Yearly renewal certificates shall be provided to the County within thirty (30) days of expiration of the current policy.

13.1.3 The types and amounts of insurance required under this Contract do not in any way limit the liability of Contractor including under any warranty or indemnity provision of this Contract or any other obligation whatsoever Contractor may have to the County or others. Nothing in this Contract limits Contractor to the minimum required insurance coverages found in this Article XIII.

### **13.2 Additional Insured Endorsements and Certificate Holder**

The term "Additional Insured", as used in this Contract, shall mean St. John's County, its elected officials, officers, employees, agents and representatives. Certificates of insurance shall specifically name each Additional Insured for all policies of insurance except Workers' Compensation and Professional Liability. A copy of the endorsement showing the required coverages must accompany the certificate of insurance.

Certificate Holder Address: St. Johns County, a political subdivision of the State of Florida  
500 San Sebastian View  
St. Augustine, FL 32084  
Attn: Purchasing Department

### **13.3 Workers Compensation**

Contractor shall procure and maintain during the life of this Contract, adequate Workers' Compensation Insurance in at least such amounts as is required by law for all of its employees per Florida Statute 440.02.

### **13.4 Commercial General Liability**

Contractor shall procure and maintain during the life of this Contract, Commercial General Liability Insurance with minimum limits of \$1,000,000 per occurrence, \$2,000,000 aggregate, including bodily injury (including wrongful death), property damage, products, personal & advertising injury, and completed operations. This insurance must provide coverage for all Claims that may arise from the services and/or operations completed under this Contract, whether such services or operations are by Contractor or anyone directly or indirectly employed by them. Such insurance(s) shall also be primary and non-contributory with regard to insurance carried by the Additional Insureds.

### **13.5 Commercial Automobile Liability**

Contractor shall procure and maintain during the life of this Contract, Commercial Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability and insuring liability arising out of or in any way related directly or indirectly to the ownership, maintenance or use of any owned, non-owned or rented/hired automobiles.

### **13.6 Additional Coverages**

**ONLY THE SUBSECTIONS CORRESPONDING TO ANY CHECKED BOX IN THIS PARAGRAPH 13.6 WILL APPLY TO THIS CONTRACT.**

#### 13.6.1 Professional Liability.

13.6.1.1 Contractor shall procure and maintain, during the life of this Contract, Professional Liability or Errors and Omissions Insurance with minimum limits of \$1,000,000 with 10-year tail coverage starting upon Final Completion. Contractor's professional liability policy should not have an exclusion for environmental compliance management or construction management professionals.

13.6.1.2 In the event that Contractor employs professional engineering or land surveyor services for performing field engineering or preparing design calculations, plans, and specifications, Contractor shall require the retained engineers and land surveyors to carry professional liability insurance with limits not less than \$1,000,000 each claim with respect to negligent acts, errors, or omissions in connection with professional services to be provided under this Contract.

#### 13.6.2 Builders Risk.

13.6.2.1 Contractor shall procure and maintain Builder's Risk ("all risk") insurance on a replacement cost basis. The amount of coverage shall be equal to the full replacement cost on a completed value basis, including periodic increases or decreases in values through change orders.

13.6.2.2 The Builder's Risk policy shall identify the County as the sole loss payee. The policy shall name as insured the County, Contractor and its subcontractors of every tier. Each insured shall waive all rights of subrogation against each of the other insured to the extent that the loss is covered by the Builder's Risk Insurance. The Builder's Risk policy shall be primary and any self-insurance maintained by the County in not contributory. The Builder's Risk policy shall not include a co-insurance clause. This coverage shall not be lapsed or cancelled because of partial occupancy by the County prior to Final Completion of the Work.

13.6.2.3 The Builder's Risk insurance shall:

- a. insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal including demolition as may be reasonably necessary; and water damage (other than that caused by flood).
- b. cover, as insured property, at least the following: (i) the Work and all appurtenances, materials, supplies, fixtures, machinery, apparatus, equipment and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work including County furnished or assigned property; (ii) spare parts inventory required within the scope of the Contract; and (iii) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Jobsite, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
- c. extend to cover damage or loss to insured property (i) while in transit; and (ii) while in temporary storage at the Jobsite or in a storage location outside the Jobsite (but not including property stored at the premises of a manufacturer or supplier).
- d. include (i) performance/start-up and hot testing; (ii) soft costs (e.g. design and engineering fees, code updates, permits, bonds, insurances, and inspection costs); and (iii) costs of funding or financing when a covered risk causes delay in completing the Work.

13.6.4 The Builder's Risk Insurance may have a deductible clause. Contractor shall be responsible for paying any and all deductible costs. Notwithstanding anything to the contrary set forth above, the deductible for coverage of all perils and causes of loss enumerated in subparagraph 13.6.2.3 above shall not exceed \$250,000.

## **13.7 Other Requirements**

13.7.1 The required insurance limits identified in Sections 13.4, 13.5, and 13.6 above may be satisfied by a combination of a primary policy and/or Umbrella or Excess Liability Insurance policy. Contractor shall require each lower-tier subcontractor to comply with all insurance requirements appropriate for its scope of work, and any deficiency shall not relieve Contractor of its responsibility herein. Upon written request, Contractor shall provide County with copies of lower-tier subcontractor certificates of insurance.

13.7.2 Providing and maintaining adequate insurance coverage is a material obligation of Contractor. County has no obligation or duty to advise Contractor of any non-compliance with the insurance requirements contained in this Section. If Contractor fails to obtain and maintain all of the insurance coverages required herein, Contractor shall indemnify and hold harmless the Additional Insureds from and against any and all Claims that would have been covered by such insurance had Contractor complied with its obligations herein.

13.7.3 County reserves the right to adjust the above minimum insurance requirements or require additional insurance coverages to address other insurable hazards.

### **13.8 Payment and Performance Bonds**

Contractor shall execute, furnish the County with, and record in the public records of St. John's County, a Payment and Performance Bond in accordance with the provisions of Sections 255.05 and 287.0935 Florida Statutes, in an amount no less than the Contract Price. Such Payment and Performance Bond shall be conditioned upon the successful completion of all work, labor, services, equipment and materials to be provided and furnished hereunder, and the payment of all subcontractors, materialmen, and laborers. Said bond shall be subject to the approval of the Board of County Commissioners of St. John's County, Florida. In accordance with Section 255.05, F.S., the County may not make a payment to Contractor until Contractor has provided the County a certified copy of the recorded bond.

## **ARTICLE XIV MISCELLANEOUS**

### **14.1 Independent Contractor**

Contractor represents that it is fully experienced and properly qualified, licensed, equipped, organized, and financed to perform the Work under this Contract. Contractor shall act as an independent contractor and not as an agent in performing this Contract and shall maintain complete control over its employees and all of its Subcontractors and suppliers of any tier. Nothing contained in this Contract or any lower-tier subcontract or purchase order awarded by Contractor shall create any contractual relationship between any such subcontractor or supplier and the County. Contractor shall perform all Work in accordance with the requirements of this Contract and in accordance with its own methods subject to compliance with this Contract.

### **14.2 Examination of Contractor's Records**

The County or its authorized representative shall, until the expiration of five (5) years after final payment under this Contract, have access to, and the right to examine any directly pertinent books, documents, papers and records of Contractor involving transactions relating to this Contract, and to make copies, excerpts and transcriptions thereof. If any such examination reveals that Contractor has overstated any component of the Contract Price, Change Order, Claim, or any other County payment obligation arising out of this Contract, then Contractor shall, at the election of the County, either immediately reimburse to the County or offset against payments otherwise due Contractor, the overstated amount plus interest. The foregoing remedy shall be in addition to any other rights or remedies the County may have.

### **14.3 Backcharges**

14.3.1 Upon the County's notification to undertake or complete unperformed Work such as cleanup or to correct defective or non-conforming services, equipment, or material (Backcharge Work), if Contractor states or by its actions indicates it is unable or is unwilling to immediately proceed and/or complete the Backcharge Work in an agreed time; the County may perform such Backcharge Work by the most expeditious means available and backcharge Contractor for any and all costs thereby incurred by the County.

14.3.2 The County shall separately invoice or deduct and retain from payments otherwise due to Contractor the costs for Backcharge Work. The County's right to backcharge is in addition to any and all other rights and remedies provided in this Contract or by law. The County's performance of the Backcharge Work shall not relieve Contractor of any of its responsibilities under this Contract and Contractor shall be responsible for the Backcharge Work as if it were its own.

### **14.4 Applicable Laws**

Contractor and the Work must comply with all Applicable Laws and the requirements of any applicable grant agreements.

### **14.5 Governing Law & Venue**

The Contract shall be governed by the laws of the State of Florida. Venue for any administrative and/or legal action arising under the Contract shall be St. Johns County, Florida.

### **14.6 Assignment**

Contractor shall not sell, assign or transfer any of its rights, duties or obligations under the Contract, or under any Change Order issued pursuant to the Contract or make an assignment or transfer of any amounts payable to Contractor under the Contract, without the prior written consent of the County. In the event of any assignment, Contractor remains secondarily liable for performance of the Contract, unless the County expressly waives such secondary liability. The County may assign the Contract with prior written notice to Contractor of its intent to do so. This Contract may be assumed by and shall inure to the benefit of the County's successors and assigns without the consent of Contractor.

#### **14.7 Severability**

If a court deems any provision of the Contract void, invalid or unenforceable, that provision shall be enforced only to the extent that it is not in violation of law or is not otherwise unenforceable and all other provisions shall remain in full force and effect.

#### **14.8 Section Headings**

The section and other headings contained in this Contract are for reference purposes only and shall not affect the meaning or interpretation of this Contract.

#### **14.9 Disclaimer of Third-Party Beneficiaries**

This Contract is solely for the benefit of County and Contractor and no right or cause of action shall accrue to or for the benefit of any third party not a formal party hereto. Nothing in this Contract, expressed or implied, is intended or shall be construed to confer upon or give any person or entity other than County and Contractor, any right, remedy, or Claim under or by reason of this Contract or any provisions or conditions hereof; and all of the provisions, representations, covenants and conditions herein contained shall inure to the sole benefit of and shall be binding upon County and Contractor.

#### **14.10 Waiver; Course of Dealing**

The delay or failure by the County to exercise or enforce any of its rights or remedies under this Contract shall not constitute or be deemed a waiver of the County's right thereafter to enforce those rights or remedies, nor shall any single or partial exercise of any such right or remedy preclude any other or further exercise thereof or the exercise of any other right or remedy. The conduct of the parties to this Contract after the Effective Date shall not be deemed a waiver or modification of this Contract.

#### **14.11 No Waiver of Sovereign Immunity**

Nothing herein is intended to serve as a waiver of sovereign immunity by any agency or political subdivision to which sovereign immunity may be applicable or of any rights or limits to liability existing under Section 768.28, Florida Statutes. This section shall survive the termination of all performance and obligations under this Contract and shall be fully binding until such time as any proceeding brought on account of this Contract is barred by any applicable statute of limitations.

#### **14.12 Execution in Counterparts**

This Contract may be executed in counterparts, each of which shall be an original document, and all of which together shall constitute a single instrument. The parties may deliver executed counterparts by e-mail transmission, which shall be binding. In the event this Contract is executed through a County-approved electronic signature or online digital signature service (such as DocuSign), such execution shall be valid, effective and binding upon the party so executing. Execution and delivery of an executed counterpart of this Contract and/or a signature page of this Contract by electronic image scan transmission (such as a "pdf" file) or through a County approved electronic signature service will be valid and effective as delivery of a manually executed counterpart of this Contract.

#### **14.13 Entire Contract**

This Contract for the Work, comprised of the Contract Documents enumerated herein, constitutes the entire Contract between the Parties relating to the subject matter hereof and supersedes all prior or contemporaneous Contracts, negotiations, discussions and understandings, oral or written. This Contract may not be amended or modified except in writing, as provided herein and signed by authorized representatives of both parties.

#### **14.14 Survival**

The provisions of the Contract Documents which by their nature survive termination of the Contract, including without limitation all warranties, indemnities, insurance, payment obligations, and the County's right to audit Contractor's books and records, shall in all cases survive the expiration or earlier termination of this Contract.

#### **14.15 Employment Eligibility and Mandatory Use of E-Verify**

As a condition precedent to entering into this Contract, and in accordance with section 448.095, F.S., Contractor and its subcontractors shall register with and use the E-Verify system to verify the work authorization status of all employees hired on or after July 1, 2023.

- a. Contractor shall require each of its subcontractors to provide Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. Contractor shall maintain a copy of such affidavit for the duration of this Contract.
- b. The County, Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated section 448.09(1), F.S. or these provisions regarding employment eligibility shall terminate the contract with the person or entity.
- c. The County, upon good faith belief that a subcontractor knowingly violated these provisions regarding employment eligibility, but Contractor otherwise complied, shall promptly notify Contractor and Contractor shall immediately terminate the contract with the subcontractor.
- d. The Contractor acknowledges that, in the event that the County terminates this Contract for Contractor's breach of these provisions regarding employment eligibility, then Contractor may not be awarded a public contract for at least one (1) year after such termination. Contractor further acknowledges that Contractor is liable for any additional costs incurred by the County as a result of the County's termination of this Contract for breach of these provisions regarding employment eligibility.

#### **14.16 Equal Employment Opportunity**

During the performance of this Contract, Contractor agrees as follows:

14.16.1 Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, disability, age, sex (including sexual orientation and gender identity/expression), national origin (including limited English proficiency), marital status, or familial status. Contractor will take affirmative action to ensure that applicants and employees are treated during employment without regard to their race, color, religion, disability, sex, age, national origin, ancestry, marital status, sexual orientation, gender identity or expression, familial status, genetic information or political affiliation. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertisement, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

14.16.2 Contractor will, in all solicitations or advertisements for employees placed for, by, or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, marital status, sexual orientation, gender identity or expression, familial status, or genetic information.

14.16.3 Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with Contractor's legal duty to furnish information.

14.16.4 Contractor will send to each labor union or representatives of workers with which it has a collective bargaining Contract or other contract or understanding, a notice to be provided by the County, advising the labor union or workers' representative of Contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

14.16.5 Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

14.16.6 Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the County and the Secretary of Labor for purposes of investigation to ascertain compliance with

such rules, regulations, and orders.

14.16.7 In the event of Contractor's noncompliance with the nondiscrimination clauses of this Contract or with any of such rules, regulations, or orders, this Contract may be cancelled, terminated or suspended in whole or in part and Contractor may be declared ineligible for further contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

14.16.8 Contractor will include the provisions of paragraphs 14.16.1 through 14.16.7 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. Contractor will take such action with respect to any subcontractor or vendor as may be directed to the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, Contractor may request the United States to enter into such litigation to protect the interest of the United States.

### **14.17 Public Records**

14.17.1 Contractor shall comply and shall require all of its Subcontractors to comply with the State of Florida's Public Records Statute (Chapter 119), specifically to:

- (1) Keep and maintain public records that ordinarily and necessarily would be required by the County in order to perform the Services;
- (2) Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost as provided in Chapter 119, Florida Statutes, or as otherwise provided by Applicable Law;
- (3) Ensure that public records related to this Contract that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by Applicable Law for the duration of this Contract and following expiration of this Contract, or earlier termination thereof, if Contractor does not transfer the records to the County; and
- (4) Upon completion of this Contract, or earlier termination thereof, transfer, at no cost, to the County all public records in possession of Contractor or keep and maintain for inspection and copying all public records required by the County to perform the Work.

14.17.2 If Contractor, upon expiration of this Contract or earlier termination thereof i) transfers all public records to the County, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements; and ii) keeps and maintains public records, Contractor shall meet all Applicable Law and requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the County's information technology systems.

14.17.3 Failure by Contractor to comply with the requirements of this section shall be grounds for immediate, unilateral termination of this Contract by the County.

**IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: (904) 209-0805, [PUBLICRECORDS@SJCFL.US](mailto:PUBLICRECORDS@SJCFL.US), [500 SAN SEBASTIAN VIEW, ST. AUGUSTINE, FLORIDA 32084](#)**

### **14.18 Anti-Bribery**

Contractor and its Subcontractors shall at all times during the term of this Contract comply with all anti-bribery and corruption laws that are applicable to the performance of this Contract. Contractor represents that it has not, directly or indirectly, taken any action which would cause it to be in violation of Chapter 838 of the Florida Statutes. Contractor shall

immediately notify the County of any violation (or alleged violation) of this provision.

### **14.19 Convicted and Discriminatory Vendor Lists, and Scrutinized Companies**

14.19.1 Contractor warrants that neither it nor any Subcontractor is currently on the convicted vendor list or the discriminatory vendor list maintained pursuant to Sections 287.133 and 287.134 of the Florida Statutes, or on any similar list maintained by any other state or the federal government. Contractor shall immediately notify the County in writing if its ability to perform is compromised in any manner during the term of the Contract.

14.19.2 Section 287.135 of the Florida Statutes prohibits agencies from contracting with companies for goods or services that are on the Scrutinized Companies that Boycott Israel List, or with companies that are engaged in a boycott of Israel, and from contracting with companies for goods or services of \$1,000,000 or more that are on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or are engaged in business operations in Cuba or Syria. The lists are created pursuant to §215.473 and §215.4725, F.S. By execution of this Contract, Contractor certifies that it is not listed on the Scrutinized Companies that Boycott Israel List, the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and is not engaged in a boycott of Israel or engaged in business operations in Cuba or Syria, and understands that pursuant to §287.135, F.S., the submission of a false certification may subject Contractor to civil penalties, attorney's fees, and/or costs. In accordance with §287.135, F.S., the County may terminate this Contract if a false certification has been made, or the Contractor is subsequently placed on any of these lists, or engages in a boycott of Israel or is engaged in business operations in Cuba or Syria.

### **14.20 Compliance with Florida Statute 287.138**

14.20.1 Pursuant to 287.138 F.S., effective July 1, 2023, the County may not enter into contracts which grants the Contractor access to personal identifiable information if: 1) the Contractor is owned by the government of a Foreign Country of Concern (as defined by the statute: (b) the government of a Foreign Country of Concern has a controlling interest in the entity; or (c) the Contractor is organized under the law of or has its principal place of business in a Foreign Country of Concern. The County shall be entitled to immediately terminate this Agreement with liability to ensure the County's continued compliance with the statute.

14.20.2 Pursuant to 287.138 F.S., effective January 1, 2024, if Contractor may access, receive, transmit, or maintain personal identifiable information under this Agreement, Contractor must submit a Foreign Entity Affidavit to the County. Additionally, effective July 1, 2025, Contractor shall submit a Foreign Entity Affidavit to the County prior to any renewals of this Agreement. Failure or refusal to submit a Foreign Entity Affidavit shall be cause for immediate termination of this Agreement by the County.

### **14.21 Written Notice**

Any and all notices, requests, consents, approvals, demands, determinations, instructions, and other forms of written communication under this Contract shall be validly given when delivered as follows:

- i. Hand delivered to Contractor's Authorized Representative or hand delivered during normal business hours and addressed as shown below, or
- ii. Delivered by U.S. Mail, electronic mail or commercial express carrier, (postage prepaid, delivery receipt requested), to the following addresses:

St. Johns County  
500 San Sebastian View  
St. Augustine, FL 32084  
Attn: Leigh A. Daniels  
Email Address: [ldaniels@sjcfl.us](mailto:ldaniels@sjcfl.us)

Vargco, LLC  
1950 San Marco Blvd., Suite 2  
Jacksonville, FL 32207  
Attn: Carlos Vargas, President  
Email Address: [carlos@bargco.com](mailto:carlos@bargco.com)

*With a copy to:*

St. Johns County  
Office of the County Attorney  
500 San Sebastian View  
St. Augustine, FL 32084  
Email Address: [jferguson@sjcfl.us](mailto:jferguson@sjcfl.us)



Notices shall be deemed to have been given on the date of delivery to the location listed above without regard to actual receipt by the named addressee. County and Contractor may each change the above addresses at any time upon prior written notice to the other party.

-----  
The authorized representatives hereto have executed this Contract effective as of the Effective Date. Contractor's authorized representative executing this Contract represents that he or she is duly authorized to execute this Contract on behalf of Contractor.

**County:**

St. Johns County (Seal)  
(Typed Name)

By: \_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date of Execution)

**Contractor:**

Vargco, LLC (Seal)  
(Typed Name)

By: \_\_\_\_\_  
(Signature of Authorized Representative)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date of Execution)

**ATTEST:**

**St. Johns County, FL**  
**Clerk of Circuit Court & Comptroller**

By: \_\_\_\_\_  
(Deputy Clerk)

\_\_\_\_\_  
(Date of Execution)

**Legally Sufficient:**

\_\_\_\_\_  
(Office of County Attorney)

\_\_\_\_\_  
(Date of Execution)

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

Master Construction Agreement No: \_\_\_\_\_

**EXHIBIT "A"  
Project Price Breakdown**

Contract Price breakdown, including County-elected Alternates and Value Engineering Options are provided on the following page. The County and Contractor expressly agree to pursue any and all additional Value Engineering Options that may provide for the cost-effective delivery of the Project. Any additional Value Engineering Options elected by the County after award shall be captured via Contract Change Order.

<b>Project:</b> Fire Station #21				 <span style="float: right;">Build with Purpose.</span>	
<b>Address:</b> 4630 Melanie Street, Hastings, FL 32145		<b>ALTS. &amp; VE</b>			
<b>Date:</b> 01/14/25					
Tag	Summary Work Package	Cost of Work	Source	Notes	
<b>Alternates</b>					
Bid Alt. 2	Reduce Spec. for Apparatus Bay Doors	(\$166,210)	Industrial Door	sectional drs. at apparatus bay ilo. bi-fold drs.	
Bid Alt. 5	Remove Canopies	(\$21,532)	Resolute Fab.		
Bid Alt. 7	Remove Building Automation	(\$40,722)	All Weather Contractors	standard ctrls. ilo. sys. intercommunication	
Bid Alt. 8	VE Floor Plan	(\$72,605)	Various	reduce sq.ft. of sheriff's office	
Bid Allw. 1	Bi-Directional Antenna	\$40,000		value provided by sjc	
<b>Selected Alternates Subtotal:</b>		(\$261,069)			
<b>Value Engineering - Site Work</b>					
VE-04	Reduce Concrete Square Footage	(\$14,767)	Flamingo, Bold City	see C-301A VE	
includes removal of small portions of sidewalk, 5 parking spaces, and some patio/drive area					
VE-06	Sheet Flow Downspouts/Storm Leader Reduction	(\$21,682)	Flamingo	see C-500 VE	
includes removal of underground pipe running from downspout to storm system and the addition of splash blocks at bottom of downspouts					
VE-07	Relocate Pump(s) Closer to the Building	(\$6,218)	Flamingo	see C-500 VE	
includes relocation of both the potable water and fire pumps from plan-east of building to plan-southwest					
VE-08	Locate Building Electrical Closer to Pole/Utility Service	(\$1,175)	Coastal Electric Comp.	see C-500 VE	
includes relocation of ATS from plan-east of building to plan-north					
<b>Value Engineering - Site Work Subtotal:</b>		(\$43,842)			
<b>Value Engineering - Architectural</b>					
VE-11	Alternate Roofing Spec.	(\$6,885)	Ford Roofing Systems	mill finish metal roof ilo. kynar	
VE-13	Alternate Overhead Doors Spec. at Apparatus Bay	(\$12,300)	Industrial Door	see A-100 VE; roll-up ilo. sectional drs.	
additional deduction from Alt. 2 to replace alternate sectional doors at apparatus bay with roll up doors; see enclosed shop drawing					
VE-14	Corner Guard Spec. Reduction	(\$360)		incl. 4 ft. plastic guards	
VE-15	Remove Stucco and Stone Veneer Scope	(\$21,943)	Be Stuc., Capital, S. Dave		
includes removal of stucco and stone veneer systems from exterior of building; replaces exterior finish with split face block, block fill primer, and paint					
VE-16	Day Room Bump Out Re-design; Perimeter Soffit Removal	(\$41,500)	Capital, Div. 5 Steel.	A-100 VE, A-110 VE, A-313 VE	
removes trapezoidal shaped 'bump-out' at day room, allowing block wall to run straight; eliminates beam abv. bump-out and concrete lid abv. app. bay rms.					
VE-17	Tile ilo. Solid Surface Wall/Shower Panels	(\$11,204)	Doerr's Custom Cabs.		
<b>Value Engineering - Architectural Subtotal:</b>		(\$94,192)			
<b>Value Engineering - MEP Systems Subtotal:</b>					
VE-18b	Alternate Feeders	(\$17,250)	Coastal Electric Comp.	aluminum pwr. feeds into building ilo. copper	
VE-19	Alternate Light Fixture Package	(\$2,679)	Coastal Electric Comp.	alt. mfr.ilo. primarily cooper metalux	
VE-20	Alternate HVAC Equipment	(\$2,885)	All Weather Contractors	alt. heaters, EFs, and RGDs	
includes QMark heaters ilo. spec'd Reznor, Hart & Cooley distribution devices ilo. spec'd Titus; Dayton and Broan fans ilo. spec'd Greenheck					
<b>Value Engineering - MEP Systems Subtotal:</b>		(\$22,814)			
<b>Value Engineering - Misc. Items</b>					
VE-22	Remove Cold Water Insulation	(\$3,981)	G & W Welborn	exclude insul. from all cold-water lines	
VE-24	Mtl. Walls ilo. Block at Apparatus Bay; Shorter Trench Drains	(\$72,329)	Capital, Div. 5, Leon Stl.	see A-100 VE	
removes split face CMU at app. bay (added in VE-15), interior CMU walls at app. bay, and mtl. roof; adds new PEMB walls and roof and att. interior partitions					
<b>Value Engineering - Misc. Items Subtotal:</b>		(\$76,310)			
<b>Total Alternates and VE:</b>		(\$498,227)			
<b>BASE PROJECT TOTAL</b>		<b>\$4,499,901</b>			
<b>SELECTED ALTS. &amp; VE PROJECT TOTAL</b>		<b>\$4,001,674</b>			
VE-25	8" Standard Block ilo. Split-Face	(\$16,712)	Capital Conc. & Mason.	<b>County Election TBD after award</b>	
removes split face CMU at remaining block building exterior (added in VE-15); note some split-face was removed in VE-24; replaces with standard 8" CMU					
<b>SELECTED ALTS. &amp; ADDITIONAL VE PROJECT TOTAL</b>		<b>\$3,984,962</b>			

FORM 1  
**CERTIFICATION OF PAYMENTS TO SUBCONTRACTORS**

Contract No.	
Project Title:	Flagler Estates Fire Station #21 & SJSO Field Office

The undersigned Contractor hereby swears under penalty of perjury that:

1. Contractor has paid all Subcontractors all undisputed contract obligations for labor, services, or materials provided on this Project within the time period set forth in Sections 218.73 and 218.735, Florida Statutes, as applicable.
2. The following Subcontractors have not been paid because of disputed contractual obligations; a copy of the notification sent to each, explaining the good cause why payment has not been made, is attached to this form:

Subcontractor Name and Address	Date of Disputed Invoice	Amount in Dispute

Contractor’s Authorized Representative executing this Certification of Payments to Subcontractors represents that he or she is duly authorized to execute this Certificate, or if executing on behalf of another, is authorized to do so and that such Authorized Representative is legally bound.

Dated \_\_\_\_\_, 20\_\_                      Contractor \_\_\_\_\_

By: \_\_\_\_\_

(Signature)

By: \_\_\_\_\_

(Name and Title)

STATE OF \_\_\_\_\_ )  
   ) SS.  
 COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me, by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by \_\_\_\_\_, who is personally known to me or who has produced \_\_\_\_\_ as identification and who did (did not) take an oath.

NOTARY PUBLIC:

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

(NOTARY SEAL)

My commission expires:

FORM 2

**CONTRACTOR'S FINAL RELEASE AND WAIVER OF LIEN**

<b>Owner:</b> St. Johns County (hereafter "County")	<b>County Department/Division:</b>
<b>Contract No.:</b>	<b>Contractor Name:</b>
<b>Project:</b> Flagler Estates Fire Station #21 & SJSO Field Office	<b>Contractor Address:</b>
<b>Project Address:</b>	<b>Contractor License No.:</b>
<b>Payment Amount:</b>	<b>Amount of Disputed Claims:</b>

The undersigned has been paid in full for all labor, work, services, materials, equipment, and/or supplies furnished to the Project or to the County and does hereby waive and release any notice of lien, any right to mechanic's lien, any bond right, any claim for payment and any rights under any similar ordinance, rule or statute related to a claim or payment rights the undersigned has on the above described Project, except for the payment of Disputed Claims, if any, described below.

The undersigned warrants that he or she either has already paid or will use the monies received from this final payment to promptly pay in full all of its laborers, subcontractors, materialmen and suppliers for all labor, work, services, materials, equipment, or supplies provided for or to the above referenced Project.

Before any recipient of this document relies on it, the recipient should verify evidence of payment to the undersigned.

**Disputed Claims:** The following invoices, pay applications, retention, or extra work are reserved by undersigned from this final payment (if there are no Disputed Claims enter "**None**"):

*None*

Signed this \_\_ day of \_\_\_\_\_, 20

\_\_\_\_\_  
Contractor/Company Name

By:

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_

**NOTICE: THIS DOCUMENT WAIVES RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT TO THE EXTENT OF THE PAYMENT AMOUNT OR THE AMOUNT RECEIVED.**

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

OFFICIAL COUNTY BID FORM – OPTION A (10-MONTH CONSTRUCTION)

REVISED PER ADDENDUM #1

ST. JOHNS COUNTY, FLORIDA

PROJECT: FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: 12/19/24

BID PROPOSAL OF

**Vargco, LLC**

Full Legal Company Name

1950 San Marco Blvd, Suite 2, Jacksonville, FL 32207 904-387-6677

N/A

Mailing Address

Telephone Number

Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the IFB Documents and Specifications entitled for IFB No: 2016R; Flagler Estates Fire Station #21 & Sheriff's Office in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal for **Bid Option A** summarized as follows.

**BID OPTION A (COMPLETE PROJECT W/IN 10 MONTHS) – LUMP SUM BASE BID:** (As per plans and specifications)

Bid Option A requires the awarded Contractor to complete the project within a ten (10) month timeframe. See Section 25 on page 9 for additional information on the Bid Options.

\$ 4,499,901.00

Bid Option A: Base Bid Lump Sum Price (Numerical)

four million four hundred ninety-nine thousand nine hundred one /100 Dollars

Option A: Base Bid Lump Sum Bid Price (Amount written or typed in words)

A. **ALLOWANCE 1:** Allowance for Bi-Directional Antenna (BDA) Equipment **\$ 40,000.00**  
(as specified on Exhibit "A" – Technical Specifications Section 01 21 00 – Allowances Part 3.03)

B. **BID ALTERNATE 1:** Addition of Storage Building (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(A))

\$ 222,174

Bid Alternate 1 Lump Sum Price (Numerical)

C. **BID ALTERNATE 2:** Reduced Spec for Apparatus Bay Doors (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(B))

\$ (-166,210)

Bid Alternate 2 Lump Sum Price (Numerical)

D. **BID ALTERNATE 3:** Addition of Water Tower (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(C))

\$ 151,786

Bid Alternate 3 Lump Sum Price (Numerical)

- E. **BID ALTERNATE 4: Addition of Apparatus Bay Fan** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(D))

\$ 11,972  
Bid Alternate 4 Lump Sum Price (Numerical)

- F. **BID ALTERNATE 5: Remove Canopies** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(F))

\$ (-21,532)  
Bid Alternate 6 Lump Sum Price (Numerical)

- G. **BID ALTERNATE 6: Delete Coffee Station and Kitchen Island Millwork** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(G))

\$ (-6,237)  
Bid Alternate 7 Lump Sum Price (Numerical)

- H. **BID ALTERNATE 7: Remove Building Automation** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(I))

\$ (-40,722)  
Bid Alternate 9 Lump Sum Price (Numerical)

- I. **BID ALTERNATE 8: VE Floor Plan Reduction** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(J))

\$ (-72,605)  
Bid Alternate 10 Lump Sum Price (Numerical)

- J. **BID OPTION A: TOTAL LUMP SUM BID:** (Option A Base Bid + Allowance and all Alternates)

\$ 4,618,527.00

Option A: Total Lump Sum Bid (Numerical)

four million six hundred eighteen thousand five hundred twenty-seven /100 Dollars

Option A: Total Lump Sum Bid (Amount written or typed in words)

Bidder shall insert the Not-To-Exceed Bid Prices in numerals and in words. Any discrepancy between the two submitted amounts shall be determined by the amount written in words.

The Not-To-Exceed Bid Prices submitted above shall include any and all fees, taxes, surcharges, and any other costs associated with performing the work required by this Contract. The Not-To-Exceed Bid Prices above shall be the final price charged to the County for work performed.

The Not-To-Exceed Bid Prices offered in this Bid Proposal shall remain firm for a period of ninety (90) days from the Bid opening date.

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

OFFICIAL COUNTY BID FORM – OPTION B (12-MONTH CONSTRUCTION)  
REVISED PER ADDENDUM #1

ST. JOHNS COUNTY, FLORIDA

PROJECT: FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: 12/19/24

BID PROPOSAL OF

**Vargco, LLC**

Full Legal Company Name

1950 San Marco Blvd, Suite 2, Jacksonville, FL 32207 904-387-6677

N/A

Mailing Address

Telephone Number

Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the IFB Documents and Specifications entitled for IFB No: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal for **Bid Option B** summarized as follows.

**BID OPTION B (COMPLETE PROJECT W/IN 12 MONTHS) – LUMP SUM BASE BID:** (As per plans and specifications)

Bid Option B requires the awarded Contractor to complete the project within a twelve (12) month timeframe. **See Section 25 on page 9 for additional information on the Bid Options.**

\$ 4,499,901.00

Bid Option B: Base Bid Lump Sum Price (Numerical)

four million four hundred ninety-nine thousand nine hundred one

/100 Dollars

Bid Option B: Base Bid Lump Sum Bid Price (Amount written or typed in words)

K. **ALLOWANCE 1:** Allowance for Bi-Directional Antenna (BDA) Equipment **\$ 40,000.00**  
(as specified on Exhibit "A" – Technical Specifications Section 01 21 00 – Allowances Part 3.03)

L. **BID ALTERNATE 1:** Addition of Storage Building (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(A))

\$ 222,174

Bid Alternate 1 Lump Sum Price (Numerical)

M. **BID ALTERNATE 2:** Reduced Spec for Apparatus Bay Doors (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(B))

\$ (-166,210)

Bid Alternate 2 Lump Sum Price (Numerical)

N. **BID ALTERNATE 3:** Addition of Water Tower (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(C))

\$ 151,786

Bid Alternate 3 Lump Sum Price (Numerical)



O. **BID ALTERNATE 4: Addition of Apparatus Bay Fan** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(D))

\$ 11,972  
Bid Alternate 4 Lump Sum Price (Numerical)

P. **BID ALTERNATE 5: Remove Canopies** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(F))

\$ (-21,532)  
Bid Alternate 6 Lump Sum Price (Numerical)

Q. **BID ALTERNATE 6: Delete Coffee Station and Kitchen Island Millwork** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(G))

\$ (-6,237)  
Bid Alternate 7 Lump Sum Price (Numerical)

R. **BID ALTERNATE 7: Remove Building Automation** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(I))

\$ (-40,722)  
Bid Alternate 9 Lump Sum Price (Numerical)

S. **BID ALTERNATE 8: VE Floor Plan Reduction** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(J))

\$ (-72,605)  
Bid Alternate 10 Lump Sum Price (Numerical)

T. **BID OPTION B: TOTAL LUMP SUM BID:** (Option B Base Bid + Allowance and all Alternates)

\$ 4,618,527.00

Option B: Total Lump Sum Bid (Numerical)

four million six hundred eighteen thousand five hundred twenty-seven /100 Dollars

Option B: Total Lump Sum Bid (Amount written or typed in words)

Bidder shall insert the Not-To-Exceed Bid Prices in numerals and in words. Any discrepancy between the two submitted amounts shall be determined by the amount written in words.

The Not-To-Exceed Bid Prices submitted above shall include any and all fees, taxes, surcharges, and any other costs associated with performing the work required by this Contract. The Not-To-Exceed Bid Prices above shall be the final price charged to the County for work performed.

The Not-To-Exceed Bid Prices offered in this Bid Proposal shall remain firm for a period of ninety (90) days from the Bid opening date.

Project: Fire Station #21  
 Address: 4630 Melanie Street, Hastings, FL 32145  
 Date: 12/19/24



Build with Purpose.

Div.	Summary Work Package	Cost of Work	% of Dir. Wrk.	Recommended	Notes
<b>102a</b>	<b>Alt. I: Dumpster Enclosure as CMU ilo. Fence</b>	<b>\$31,807</b>			
	add for block enclosure	\$34,413		Capital Conc. & Mason.	
	credit to remove fencing enclosure	(\$2,606)		Superior Fence & Rail	
<b>102b</b>	<b>Alt. II: Add Security Fencing and Gates</b>	<b>\$66,201</b>			
	fencing	\$34,701		Superior Fence & Rail	
	motorized gates	\$31,500		Superior Fence & Rail	
<b>102c</b>	<b>Alt. III: Add Generator</b>	<b>\$135,219</b>			
	generator equipment	\$126,000		Coastal Electric Comp.	
	installation and hook up	\$9,219		Coastal Electric Comp.	
<b>102d</b>	<b>Alt. IV: Added Site Lighting</b>	<b>\$6,685</b>			
	material and setting	\$3,268		Coastal Electric Comp.	per unit
	power and lighting controls	\$3,417		Coastal Electric Comp.	per unit
<b>102e</b>	<b>Alt. V: Add Bi-Pass Paving</b>	<b>\$120,819</b>			
	soil stabilization	\$42,714		Flamingo	
	concrete	\$78,105		Flamingo	
<b>102f</b>	<b>Alt. VI: Add Concrete Curb and Gutter</b>	<b>\$36,807</b>			
	curb and gutter	\$36,807		Flamingo	
	none	\$0			
<b>102g</b>	<b>Alt. VII: Include Larger Pond and Fountain</b>	<b>\$12,617</b>			
	increase excavation by 15%	\$6,018		Flamingo	
	fountain	\$3,474			
	set and connection	\$3,125		Coastal Electric Comp.	
<b>102h</b>	<b>Alt. VIII: Added Mulch Trails</b>	<b>\$37,750</b>			
	grade trail	\$3,100		Flamingo	
	tree trim	\$11,250			
	mulch	\$23,400		Bold City Outdoors	

\*dir. cost only; no fee, markup, insurance, etc. included

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

During the preparation of the Bid, the following addenda, if any, were received:

No.: 1 Date Received: 11/25/2024  
No.: 2 & 3 Date Received: 11/27/2024  
No.: 4 Date Received: 12/13/2024

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the IFB Documents and Project Specifications.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by the County, within the same time limit specified in the IFB Documents as indicated above.

If the Undersigned is notified of the acceptance of this Bid Proposal by the Board within ninety (90) calendar days for the time set for the opening of Bids, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the County.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than **five percent (5%) of Total Project Not-To-Exceed Bid Price**, payable to the County, accompanies this Bid; that the amount is not to be construed as a penalty, but as liquidated damages which said County will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the County, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

**CORPORATE/COMPANY**

Full Legal Company Name: Vargco, LLC (Seal)

By:  Carlos Vargas, President  
Signature of Authorized Representative (Name & Title typed or printed)

By: N/A N/A  
Signature of Authorized Representative (Name & Title typed or printed)

Address: 1950 San Marco Blvd, Suite 2, Jacksonville, FL 32207

Telephone No.: ( ) 904-387-6677 Fax No.: ( ) N/A

Email Address for Authorized Company Representative: carlos@vargco.com

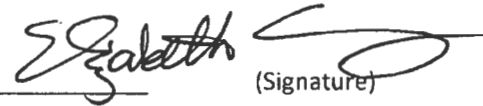
Federal I.D. Tax Number: 47-4313417 DUNS #: 091516973  
(If applicable)

**Point of Contact (POC) to receive invitation from Payment Works for registration:**

Authorized POC: Carlos Vargas Email Address for POC: carlos@vargco.com  
(Name typed or printed)

**INDIVIDUAL**

Name: Elizabeth Cravey Controller  
(Name typed or printed) (Title)

  
(Signature)

Address: 1950 San Marco Blvd. Suite 2, Jacksonville, FL 32207

Telephone No.: ( ) 904-387-6677 Fax No.: N/A

Email Address: elizabeth@vargco.com

Federal I.D. Tax Number: 47-4313417

**Point of Contact (POC) to receive invitation from PaymentWorks for registration to set up a PaymentWorks account OR Point of Contact (POC) who is currently connected to Company's existing PaymentWorks account:**

Authorized POC: Elizabeth Cravey Email Address for POC: elizabeth@vargco.com  
(Name typed or printed)

Each Bidder must submit all required forms and attachments. Failure to submit any required document may be grounds for disqualification due to non-responsiveness.

Submittal Requirements: Official County Bid Form, and all Attachments must be completed; along with a fully acknowledged copy of each Addendum applicable to this IFB and submitted with each copy of the Bid Proposal.

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "A"  
ST. JOHNS COUNTY AFFIDAVIT

Bidder shall complete and submit a sworn statement as part of the submitted Bid. This sworn statement shall be an Affidavit in the following form, executed by an officer/principal of the Bidder, and shall be sworn to before a person who is authorized by law to administer oaths.


STATE OF Florida

COUNTY OF Duval

The Undersigned authority, Carlos Vargas ("Affiant"), who being duly sworn, deposes and states that he/she is the President (Title) of the Bidder Vargco, LLC (Full Legal Name of Bidder) submitting the attached Bid for the services provided in the IFB Documents for IFB No: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office, in St. Johns County, Florida.

The Affiant further states that no more than one Bid for the above-referenced project will be submitted from the Bidder, the Affiant, their firm or corporation under the same or different name, and that such Bidder has no financial interest in the firm of another Bidder for the same work. Affiant also states that neither he/she, the firm, association nor corporation of the Bidder has either directly or indirectly entered into any agreement, participated in any collusion, nor otherwise taken any action in restraint of free competitive bidding in connection with this firm's Bid on the above-described project. Furthermore, neither the firm nor any of its officers are barred from participating in public contract lettings in the State of Florida or any other state.

DATED this 19th day of December, 2024.

  
Signature of Affiant

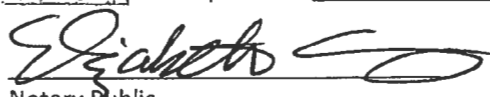
Carlos Vargas  
Printed Name of Affiant

President  
Printed Title of Affiant

Vargco, LLC  
Full Legal Name of Consultant/Contractor

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this 19th day of December, 2024, by Affiant, who is personally known to me or has produced N/A as identification.

ELIZABETH M. CRAVEY  
NOTARY PUBLIC  
STATE OF FLORIDA  
NO. HH 486171  
MY COMMISSION EXPIRES MAR. 27, 2028

  
Notary Public  
My Commission Expires: MAR 27, 2028

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "B"  
CERTIFICATES AS TO CORPORATE PRINCIPAL

I, Carlos Vargas, certify that I am the Secretary of the corporation named as Principal in the foregoing; that Carlos Vargas, (Authorized Representative of Bidder) who signed the Bond(s) on behalf of the Bidder, was then President (Title) of said corporation; that I know his/her signature; and his/her signature thereto is genuine; and that said bond(s) was duly signed, sealed, and attested to on behalf of said corporation by authority of its governing body.

*CV*  
Signature of Secretary

Vargco, LLC  
Full Legal Name of Corporation (Bidder)

STATE OF Florida

COUNTY OF Duval

Before and by me, a Notary Public duly commissioned, qualified and acting personally, being duly sworn upon oath by means of  physical presence or  online notarization, Carlos Vargas (Authorized Representative of Bidder) states that he/she is authorized to execute the foregoing Bid Bond on behalf of the Bidder named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me on this 19th day of December, 2024, by the Authorized Representative of Bidder, who is personally known to me or has produced N/A as identification. Type and Number of I.D. produced: N/A.

ELIZABETH M. CRAVEY  
NOTARY PUBLIC  
STATE OF FLORIDA  
NO. HH 486171  
MY COMMISSION EXPIRES MAR. 27, 2028

*E. Cravey*  
Notary Public  
My Commission Expires: MAR 27, 2028

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "C"  
LICENSE / CERTIFICATION LIST**

In the space below, the Bidder shall list all current licenses and certifications held.

*The bidder shall attach a copy of each current license and certification listed below to this form.*

*The bidder must attach a list of any and all relevant experience within the last five (5) years with the proposed scope of work.*

License(s)/Certificate(s)/ Pre-Qualifications	License #	Issuing Agency	Expiration Date
State of Florida Business License	L15000107194	State of Florida Department of State	12/31/2024
Certified General Contractor (CGC)	CGC1524290	State of Florida DBPR	08/31/2026
SJC Local Business Tax Receipt	1098308	St. Johns County Tax Collector	09/30/2025

# *State of Florida*

## *Department of State*

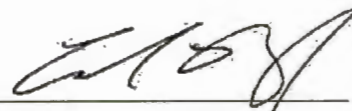
I certify from the records of this office that VARGCO, LLC is a limited liability company organized under the laws of the State of Florida, filed on June 19, 2015, effective June 15, 2015.

The document number of this limited liability company is L15000107194.

I further certify that said limited liability company has paid all fees due this office through December 31, 2024, that its most recent annual report was filed on January 11, 2024, and that its status is active.

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Ninth day of September, 2024*



  
*Secretary of State*

Tracking Number: 9505892316CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>





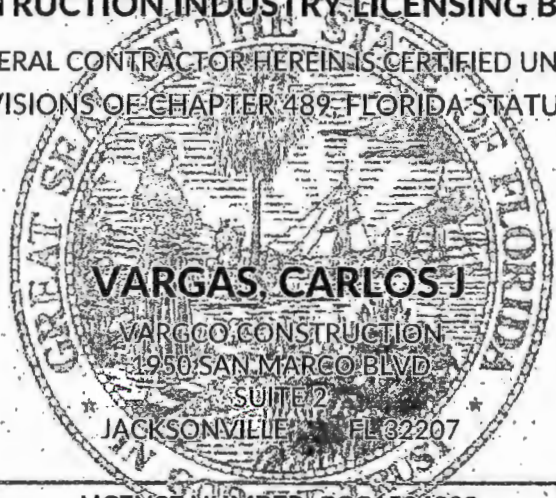
Ron DeSantis, Governor

Melanie S. Griffin, Secretary



**STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**CONSTRUCTION INDUSTRY LICENSING BOARD**  
THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE  
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES



**VARGAS, CARLOS J**

VARGCO CONSTRUCTION  
1950 SAN MARCO BLVD  
SUITE 2  
JACKSONVILLE FL 32207

**LICENSE NUMBER: CGC1524290**

**EXPIRATION DATE: AUGUST 31, 2026**

Always verify licenses online at [MyFloridaLicense.com](http://MyFloridaLicense.com).

ISSUED: 06/12/2024

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.



This Receipt is issued pursuant to  
County ordinance 87-36

# 2024/2025 ST. JOHNS COUNTY LOCAL BUSINESS TAX RECEIPT

MUST BE DISPLAYED IN A CONSPICUOUS PLACE

**Account** 1098308  
**EXPIRES** September 30, 2025

**Business Type** General Contractor (L)  
**Location** 1950 San Marco Blvd # 2  
Jacksonville FL 32207

**Business Name** Vargco LLC

**Owner Name** Vargco LLC

**Mailing Address** 1950 San Marco Blvd Ste 2  
Jacksonville FL 32207



**New Business  
Transfer**

<b>Tax</b>	18.00
<b>Penalty</b>	0.00
<b>Cost</b>	0.00
<b>Total</b>	18.00

**DENNIS W. HOLLINGSWORTH  
ST. JOHNS COUNTY TAX COLLECTOR**

This receipt does not constitute a franchise, an agreement, permission or authority to perform the services or operate the business described herein when a franchise, an agreement, or other county commission, state or federal permission or authority is required by county, state or federal law.

**This form becomes a receipt only when validated below**

**Paid by receipt(s) 2024-920103 on 12/10/24 for \$18.00**

Relevant Project Experience - Past 5 Years

Job Name	Year	Time Frame	City	State	Owner's Project Manager	Phone Number	Contract
Love's #867, Construction	2023	180 days	Normal	IL	Roger Patterson	405-255-1227	\$ 22,541,908.60
Love's #270 New Construction	2024	180 days	Ranger	TX	Roger Patterson	405-255-1227	\$ 17,102,451.00
Love's #894 New Construction	2024	180 days	Elkton	FL	Roger Patterson	405-255-1227	\$ 15,964,404.48
Love's #887 New Construction	2024	180 days	Herculaneum	MO	Roger Patterson	405-255-1227	\$ 14,439,764.80
Love's #968 New Construction	2024	180 days	Fredericktown	MO	Roger Patterson	405-255-1227	\$ 13,030,276.21
Love's #842, New Construction	2022	180 days	Rockville	MN	Roger Patterson	405-255-1227	\$ 11,838,038.09
Love's #869, New Construction	2023	180 days	Le Mars	IA	Roger Patterson	405-255-1227	\$ 8,375,805.93
Love's #824, New Construction	2022	150 days	Mt. Vernon	IL	Roger Patterson	405-255-1227	\$ 7,933,434.48
Love's #885 New Construction	2023	180 days	Combes	TX	Roger Patterson	405-255-1227	\$ 7,287,328.35
Love's #394 New Construction	2023	180 days	DeMotte	IN	Roger Patterson	405-255-1227	\$ 7,282,177.62
Road Ranger #279 New Construction	2021	180 days	Marion	IL	John Carabelli	815-621-9972	\$ 6,984,101.95
Love's #417 New Construction	2022	180 days	Gary	IN	Roger Patterson	405-255-1227	\$ 6,615,907.19
Road Ranger #280, New Construction	2021	180 days	Monahans	TX	John Carabelli	815-621-9972	\$ 6,527,747.43
Love's #800, New Construction	2022	150 days	Elk Grove Village	IL	Roger Patterson	405-255-1227	\$ 6,016,781.97
Love's #609 Parking Lot Expansion	2024	150 days	Denton	TX	Roger Patterson	405-255-1227	\$ 5,367,996.35
Love's #417 New Construction	2024	150 days	Gary	IN	Roger Patterson	405-255-1227	\$ 5,347,354.45
Largura Residence Renovations - Multiple Phases	2022	N/A	Neptune Beach	FL	Nick Largura	904-434-3953	\$ 4,436,917.84
Love's #284 Renovation	2024	150 days	Edinburg	TX	Roger Patterson	405-255-1227	\$ 3,298,965.73
Love's #341 Renovation	2024	150 days	Rolla	MO	Roger Patterson	405-255-1227	\$ 2,823,742.29
Love's #337 Renovation	2024	150 days	Albert Lea	MN	Roger Patterson	405-255-1227	\$ 2,648,916.39
Love's #309, Renovation	2022	150 days	Aurora	NE	Roger Patterson	405-255-1227	\$ 1,667,431.19
Love's #679 Renovation	2023	90 days	Hardin	MT	Roger Patterson	405-255-1227	\$ 1,568,311.31
Love's #417, Renovation	2022	150 days	Gary	IN	Roger Patterson	405-255-1227	\$ 1,518,584.99
Love's #305 Tire Shop Addition	2021	180 days	Toms Brooks	VA	Roger Patterson	405-255-1227	\$ 1,389,073.89
Love's #500 Tire Shop Addition	2022	150 days	Eagleville	MO	Roger Patterson	405-255-1227	\$ 1,378,900.15
Love's #612, Renovation	2022	90 days	Bridgeton	MO	Roger Patterson	405-255-1227	\$ 944,984.58
Love's #323 Renovation	2021	180 days	Marion	IN	Roger Patterson	405-255-1227	\$ 938,067.86
Love's #313 Renovation	2020	45 days	Matthews	MO	Roger Patterson	405-255-1227	\$ 856,721.28
Love's #220, Renovation	2023	150 days	Cheyenne	WY	Roger Patterson	405-255-1227	\$ 806,189.92
Love's #583, Renovation	2022	90 days	New Baden	IL	Roger Patterson	405-255-1227	\$ 796,731.10
Love's #394 Utilities	2023	15 days	DeMotte	IN	Roger Patterson	405-255-1227	\$ 734,652.83
Love's #361 Renovation	2021	45 days	Newton	IA	Roger Patterson	405-255-1227	\$ 715,095.00
Love's #397 New Construction	2021	40 days	Blacksburg	SC	Roger Patterson	405-255-1227	\$ 713,648.01
Love's #249 Renovation	2021	45 days	Williamsville	IL	Roger Patterson	405-255-1227	\$ 597,294.76
Love's #435 Renovation	2021	60 days	Ruther Glen	VA	Roger Patterson	405-255-1227	\$ 420,650.06
Love's #239, Renovation	2022	90 days	Max Meadows	VA	Roger Patterson	405-255-1227	\$ 397,954.42
Pilot Flying J #1227 Renovation	2020	45 days	Pyote	TX	Brandon Parks	865-567-6122	\$ 385,930.52
Love's #500 Renovation	2020	45 days	Eagleville	MO	Roger Patterson	405-255-1227	\$ 338,997.46
Love's #305 Renovation	2021	30 days	Toms Brook	VA	Roger Patterson	405-255-1227	\$ 303,945.18
Love's #887 Site Prep	2023	14 days	Herculaneum	MO	Roger Patterson	405-255-1227	\$ 230,675.18
Love's #318 Renovation	2020	45 days	Ina	IL	Roger Patterson	405-255-1227	\$ 215,007.56
Love's #417 Demolition	2022	14 days	Gary	IN	Roger Patterson	405-255-1227	\$ 162,834.00
Love's #876 Renovation	2023	90 days	Michigan City	IN	Roger Patterson	405-255-1227	\$ 150,983.56
Pilot Flying J #416, Renovation	2021	21 days	Cordele	GA	Brandon Parks	865-567-6122	\$ 85,137.95
Love's #305 Arby's Restaurant Renovation	2022	30 days	Toms Brook	VA	Roger Patterson	405-255-1227	\$ 58,904.59
City of Jacksonville Demolition (3 Projects)	2021	14 days	Jacksonville	FL	Frank Sumter	904-255-8760	\$ 52,300.00
Love's #787 Renovation	2021	7 days	Mosheim	TN	Roger Patterson	405-255-1227	\$ 14,123.21
Lynch Residence Demolition	2020	10 days	Jacksonville	FL	Lauren & Brian Lynch	904-614-9942	\$ 12,857.00
Pilot Flying J #88 Repair	2020	14 days	Cocoa	FL	Brandon Parks	865-567-6122	\$ 12,806.02
Love's #622 Kitchen Repair	2022	7 days	Menomonie	WI	Roger Patterson	405-255-1227	\$ 12,440.16
Pilot Flying J #622 Renovation	2021	7 days	Fort Pierce	FL	Brandon Parks	865-567-6122	\$ 10,570.79
Pilot Flying J #1225 Repair	2020	21 days	Mascoutah	IL	Brandon Parks	865-567-6122	\$ 9,913.94
Love's #679 Casino	2023	7 days	Hardiri	MT	Roger Patterson	405-255-1227	\$ 8,816.85
Pilot #1227 Repair	2020	10 days	Monahans	TX	Brandon Parks	865-567-6122	\$ 8,186.41
Pilot #293 Repair	2020	15 days	Ocala	FL	Brandon Parks	865-567-6122	\$ 5,285.59
<b>Total</b>							<b>\$ 193,408,028.47</b>

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "D"  
LIST OF PROPOSED SUB-CONTRACTORS / SUPPLIERS**

contractors and/or major material suppliers proposed to perform any portion of the Work for review/approval by the County. cable licenses or certifications held by the proposed sub-contractor/supplier related to the portion of the Work for which they subcontractors/suppliers are subject to the approval of the County.

**Please see list of subcontractors on following page.**

	Work/Services to be Performed	Primary Contact Name	Contact Number and Email Address

**Please see list of subcontractors on following page.**

IFB No: 2016R; Flagler Estates Fire Station No. 21 & SJSO Field Office

Attachment D

List of Proposed Subcontractors/Suppliers

Submitted by Vargco, LLC

Company Name	Work/Services	License Number	Primary Contact Name	Contact Number	Email Address
All Weather Contractors	Mechanical	CMC1250093	Ethan Luedtke	904-781-7060	eluedtke@allweathercontractors.com
G & W Welborn	Plumbing	CFC1426839	Barry Brelsford	386-257-1172	barry@gandwplumbing.com
Coastal Electric Company	Electrical	EC0000938	Ken Grammar	904-645-0026	ken@coastalelectricco.com
Flamingo Utilities	Site, Concrete, Paving		Don Stauffer	904-940-4884	tasha@flamingoseptictanks.com
Capital Concrete	Masonry, Building Concrete		Robert Carlton	904-824-6686	info@capital-concrete.com
Division 5 Steel	Metals	CBC1265374	Joe Christian	904-964-4513	joe@division5steel.com
Doerr's Custom Cabinets	Millwork		Mickey Hicks	228-323-0176	mickey@doerrscct.com
Ford Roofing	Roofing	CCC1327698	Jacob Maust	904-834-2426	fordroofing@gmail.com
Be Stucco	Building Exterior		Sorin Chirila	610-481-9500	sorin@bestucco.com
American Roll-Up Doors	Apparatus Bay & Coil Doors		Tim Keck	407-857-2427	tim.keck@americanrollupdoor.com
Perimeter Glass	Glass, Glazing, Storefront		Steven Crews	904-699-7492	perimeterglass@yahoo.com
Taylor Cotton Ridley	Doors, Frames, Hardware		Dock Rich	904-733-8373	drick@taylorcottonridley.com
Baylor	Framing, Drywall		Mary Steiner	386-253-8976	msteiner@baylorfl.com
S. David & Co.	Painting		Torin Heffernan	904-636-7788	torin@sdavid.com
Lian Flooring	Flooring		Lizvette Romero	407-338-2265	lianflooring@gmail.com
Harbinger	Exterior Signage	ES0000116	Jill Riley	904-268-4681	jriley@harbingersign.com
Environmental Graphics	Interior Signage		727-376-5596	M. Manning	mmanning@egisigns.com
Resolute Fabricators	Canopies and Awnings		704-962-8353	Richy Wright	rwright@rfabinc.com
Southern Storage	Lockers		407-302-4405	Mark Coursin	sstoragesystem-cc@cfl.rr.com
IMC Fire Protection	Wells		J. Berne	904.406.6039	jberne@imcfireprotection.com
Life Safety Designs	Fire Alarm System	EF0000878	Josh Naimo	904-388-1700	jnaimo@lifesafetydesigns.com
Superior Fence and Rail	Fencing and Gates		Michael Williams	904-252-2139	michael.w@fencingjacksonville.com
Scapes of North Florida	Landscape and Irrigation		Connor Bearss	904-375-9520	jstuder@scapesnfl.com

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**LICENSEE DETAILS**

6:13:14 PM 12/19/2024

**Licensee Information**

Name:	<b>BARTH, MICAH A (Primary Name)</b> <b>DIVISION 5 STEEL (DBA Name)</b>
Main Address:	<b>2879 MAJESTIC OAKS LN</b> <b>GREEN COVE SPRINGS Florida 32043</b>
County:	<b>CLAY</b>
License Location:	<b>1200 EAST ANDREWS CIRCLE</b> <b>STARKE FL 32091</b>
County:	<b>BRADFORD</b>

**License Information**

License Type:	<b>Certified Building Contractor</b>
Rank:	<b>Cert Building</b>
License Number:	<b>CBC1265374</b>
Status:	<b>Current,Active</b>
Licensure Date:	<b>03/11/2022</b>
Expires:	<b>08/31/2026</b>

**Special Qualifications**      **Qualification Effective**

<b>Construction Business</b>	<b>03/11/2022</b>
------------------------------	-------------------

**Alternate Names**

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**LICENSEE DETAILS**

6:09:37 PM 12/19/2024

**Licensee Information**

Name:	<b>ELKSNIS, DARRYL ANTHONY (Primary Name)</b> <b>LIFE SAFETY DESIGNS, INC (DBA Name)</b>
Main Address:	<b>3038 LENOX AVE</b> <b>JACKSONVILLE Florida 32254</b>
County:	<b>DUVAL</b>

**License Information**

License Type:	<b>Certified Alarm System Contractor I</b>
Rank:	<b>Cert Alarm I</b>
License Number:	<b>EF0000878</b>
Status:	<b>Current,Active</b>
Licensure Date:	<b>02/23/1993</b>
Expires:	<b>08/31/2026</b>

**Special Qualifications**                      **Qualification Effective**

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**Alternate Names**

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**LICENSEE DETAILS**

6:08:11 PM 12/19/2024

**Licensee Information**

Name:	<b>MAUST, ROBERT JOHNSON (Primary Name)</b> <b>FORD ROOFING SYSTEMS INC (DBA Name)</b>
Main Address:	<b>1653 AUSTIN LN</b> <b>ST. AUGUSTINE Florida 32092</b>
County:	<b>ST. JOHNS</b>

**License Information**

License Type:	<b>Certified Roofing Contractor</b>
Rank:	<b>Cert Roofing</b>
License Number:	<b>CCC1327698</b>
Status:	<b>Current,Active</b>
Licensure Date:	<b>10/23/2006</b>
Expires:	<b>08/31/2026</b>

**Special Qualifications**      **Qualification Effective**

<b>Construction Business</b>	<b>10/23/2006</b>
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**Alternate Names**

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**LICENSEE DETAILS**

6:06:56 PM 12/19/2024

**Licensee Information**

Name:	<b>WELBORN, GARY S (Primary Name)</b> <b>G &amp; W WELBORN PLUMBING LLC (DBA Name)</b>
Main Address:	<b>1709 NORTH NOVA RD</b> <b>HOLLY HILL Florida 32117</b>
County:	<b>VOLUSIA</b>

**License Information**

License Type:	<b>Certified Plumbing Contractor</b>
Rank:	<b>Cert Plumbing</b>
License Number:	<b>CFC1426839</b>
Status:	<b>Current,Active</b>
Licensure Date:	<b>10/19/2005</b>
Expires:	<b>08/31/2026</b>

**Special Qualifications**                      **Qualification Effective**

<b>Construction Business</b>	<b>10/19/2005</b>
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**Alternate Names**

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Ron DeSantis, Governor

Melanie S. Griffin, Secretary



**STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**CONSTRUCTION INDUSTRY LICENSING BOARD**

THE PLUMBING CONTRACTOR HEREIN IS CERTIFIED UNDER THE  
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

**WELBORN, GARY S**

G & W WELBORN PLUMBING LLC  
1709 NORTH NOVA RD  
HOLLY HILL FL 32117

**LICENSE NUMBER: CFC1426839**

**EXPIRATION DATE: AUGUST 31, 2026**

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ISSUED: 07/22/2024

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Ron DeSantis, Governor

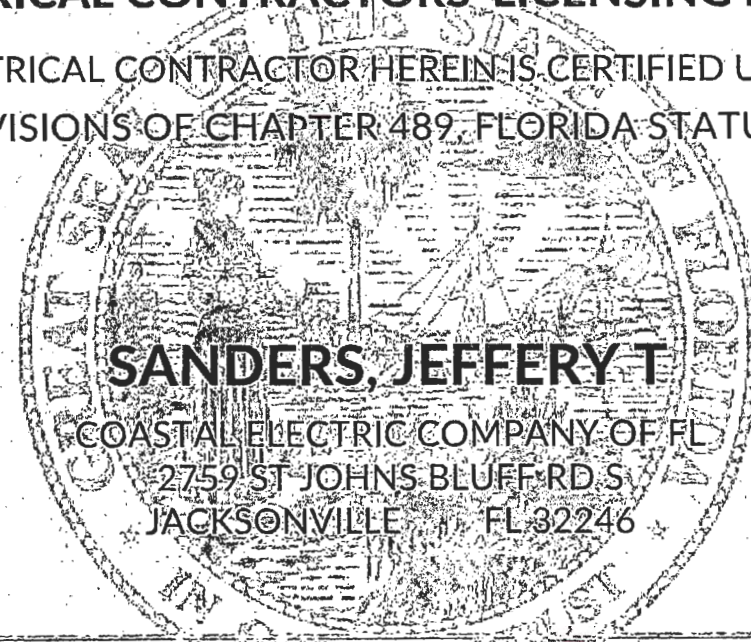
Melanie S. Griffin, Secretary



**STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**ELECTRICAL CONTRACTORS' LICENSING BOARD**

THE ELECTRICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE  
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES



**SANDERS, JEFFERY T**

COASTAL ELECTRIC COMPANY OF FL  
2759 ST JOHNS BLUFF RD S  
JACKSONVILLE FL 32246

**LICENSE NUMBER: EC0000938**

**EXPIRATION DATE: AUGUST 31, 2026**

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ISSUED: 07/17/2024

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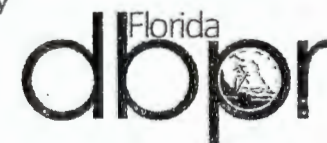
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Ron DeSantis, Governor

Melanie S. Griffin, Secretary



**STATE OF FLORIDA**  
**DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**CONSTRUCTION INDUSTRY LICENSING BOARD**

THE MECHANICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE  
PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

**FIORE, PATRICK JOHN**

ALL WEATHER CONTRACTORS INC  
1702 LINDSEY ROAD  
JACKSONVILLE FL 32221

**LICENSE NUMBER: CMC1250093**

**EXPIRATION DATE: AUGUST 31, 2026**

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**LICENSEE DETAILS**

6:15:45 PM 12/19/2024

**Licensee Information**

Name:	<b>WILLIAMS, ROGER S (Primary Name)</b>
	<b>HARBINGER (DBA Name)</b>
Main Address:	<b>13691 LITTLE HARBOR CT. JACKSONVILLE Florida 32225</b>
County:	<b>DUVAL</b>
License Location:	<b>5300 SHAD RD JACKSONVILLE FL 32257</b>
County:	<b>DUVAL</b>

**License Information**

License Type:	<b>Certified Specialty Contractor</b>
Rank:	<b>Cert Specialty</b>
License Number:	<b>ES0000116</b>
Status:	<b>Current,Active</b>
Licensure Date:	<b>09/09/1992</b>
Expires:	<b>08/31/2026</b>

**Special Qualifications      Qualification Effective**

<b>Sign Specialty</b>
-----------------------

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ATTACHMENT "E"  
CONFLICT OF INTEREST DISCLOSURE FORM

Project (RFQ, RFP, IFB) Number/Description: IFB No 2016R; Flagler Estates Fire Station #21 & Sheriff's Office

The term "conflict of interest" refers to situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting a Contractor's professional judgment in completing work for the benefit of St. Johns County ("County"). The bias such conflicts could conceivably impart may inappropriately affect the goals, processes, methods of analysis or outcomes desired by the County.

Contractors are expected to safeguard their ability to make objective, fair, and impartial decisions when performing work for the benefit of the County. Contractors, therefore must there avoid situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting the Contractor's professional judgement when completing work for the benefit of the County.

The mere appearance of a conflict may be as serious and potentially damaging as an actual distortion of goals, processes, methods of analysis or outcomes. Reports of conflicts based upon appearances can undermine public trust in ways that may not be adequately restored even when the mitigating facts of a situation are brought to light. Apparent conflicts, therefore, should be disclosed and evaluated with the same vigor as actual conflicts.

It is expressly understood that failure to disclose conflicts of interest as described herein may result in immediate disqualification from evaluation or immediate termination from work for the County.

---

Please check the appropriate statement:



I hereby attest that the undersigned Bidder has no actual or potential conflict of interest due to any other clients, contracts, or property interests for completing work on the above referenced project.



The undersigned Bidder, by attachment to this form, submits information which may be a potential conflict of interest due to other clients, contracts or property interests for completing work on the above referenced project.

Full Legal Name of Bidder: Vargco, LLC

Authorized Representative(s): [Signature]  
Signature

Carlos Vargas, President  
Print Name/Title

\_\_\_\_\_  
Signature

N/A  
Print Name/Title

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "F"  
DRUG-FREE WORKPLACE FORM

The undersigned firm, in accordance with Florida Statute 287.087 hereby certifies that

Vargco, LLC does:  
Full Legal Name of Bidder

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the danger of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the contractual services that are described in St. Johns County's request for proposals a copy of the statement specified in paragraph 1.
4. In the statement specified in paragraph 1, notify the employees that, as a condition of working on the contractual services described in paragraph 3, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Florida Statute 893, as amended, or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction or plea.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
6. Consistent with applicable provisions with State or Federal law, rule, or regulation, make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 through 5.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

  
Signature of Bidder's Authorized Representative

12/19/24

Date

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "G"  
CLAIMS, LIENS, LITIGATION HISTORY

Bidders must complete all questions below and provide information requested as applicable. Failure to appropriately complete the questions below, or provide requested information may be grounds for disqualification. Any material misrepresentation of information may also be grounds for disqualification.

1. Within the past 7 years, has your organization filed suit or a formal claim against a project owner (as a prime or subcontractor) or been sued by or had a formal claim filed by an owner, subcontractor or supplier resulting from a construction dispute? Yes \_\_\_\_\_ No  If yes, please attach additional sheet(s) to include:

Description of every action Captions of the Litigation or Arbitration

Amount at issue: N/A Name (s) of the attorneys representing all parties:  
N/A

Amount actually recovered, if any: N/A

Name(s) of the project owner(s)/manager(s) to include address and phone number:  
N/A

2. List all pending litigation and or arbitration.  
N/A

3. List and explain all litigation and arbitration within the past seven (7) years - pending, resolved, dismissed, etc.  
N/A

4. Within the past 7 years, please list all Liens, including Federal, State and Local, which have been filed against your Company. List in detail the type of Lien, date, amount and current status of each Lien.

2023 - Duval County, property nuisance citation (illegal dumping by outside parties on company property). Corrected on 7/13/2023. \$851. Status - Settled

5. Have you ever abandoned a job, been terminated or had a performance/surety bond called to complete a job?

Yes \_\_\_\_\_ No  If yes, please explain in detail:  
N/A



6. For all claims filed against your company within the past five (5) years, have all been resolved satisfactorily with final judgment in favor of your company within 90 days of the date the judgment became final? Yes  No   
If no, please explain why?

N/A

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7. List the status of all pending claims currently filed against your company:

N/A

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**Liquidated Damages**

1. Has a project owner ever withheld retainage, issued liquidated damages or made a claim against any Performance and Payment Bonds? Yes  No  If yes, please explain in detail:

N/A

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**(Use additional or supplemental pages as needed)**

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE  
ATTACHMENT "H"

SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

I, Carlos Vargas ("Affiant"), being duly authorized by and on behalf of Vargco, LLC ("Bidder") hereby swears or affirms as follows:

1. The principal business address of Bidder is: 1950 San Marco Blvd., Suite 2, Jacksonville, FL 32207
2. I am duly authorized as President (Title) of Bidder.
3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined in Section 287.133 of the Florida Statutes to mean a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilt or nolo contendere.
5. I understand that "affiliate" is defined in Section 287.133 of the Florida Statutes to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime, or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime, or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate, or (4) a person or corporation who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.
6. Neither the Bidder, nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Offeror or contractor, nor any affiliate of the Offeror or contractor has been convicted of a public entity crime subsequent to July 1, 1989. (Draw a line through paragraph 6 if paragraph 7 below applies.)
7. ~~There has been a conviction of a public entity crime by the Respondent, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder who is active in the management of the Bidder or an affiliate of the Bidder. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted vendor list. The name of the convicted person or affiliate is \_\_\_\_\_ . A copy of the order of the Division of Administrative Hearings is attached to this statement. (Draw a line through paragraph 7 if paragraph 6 above applies.)~~

[Signature]  
Signature of Affiant

Carlos Vargas  
Printed Name & Title of Affiant

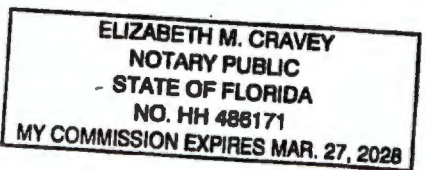
Vargco, LLC  
Full Legal Name of Bidder

12/19/24  
Date of Signature

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this 19th day of December, 2024, by Affiant, who is  personally known to me or  has produced \_\_\_\_\_ as identification.

[Signature]  
Notary Public

MAR 27, 2028  
My Commission Expires



IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

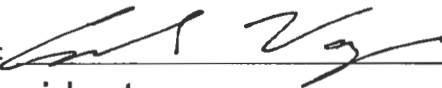
ATTACHMENT "I"  
NON-COLLUSION CERTIFICATION

St. Johns County requires, as a matter of policy, that any Firm receiving a contract or award resulting from the Invitation for Bid issued by St. Johns County shall make certification as below. Receipt of such certification, under oath, shall be a prerequisite to the award of contract and payment thereof.

I (we) hereby certify that if the contract is awarded to me, our firm, partnership or corporation, that no members of the elected governing body of St. Johns County nor any professional management, administrative official or employee of the County, nor members of his or her immediate family including spouse, parents or children, nor any person representing or purporting to represent any member or members of the elected governing body or other official, has solicited, has received or has been promised, directly or indirectly, any financial benefit including but not limited to a fee, commission, finder's fee, political contribution, goods or services in return for favorable review of any Bids submitted in response to the Invitation for Bid or in return for execution of a contract for performance or provision of services for which Bids are herein sought.

Handwritten Signature of Authorized Principal(s) of Bidder:

NAME (print): Carlos Vargas

SIGNATURE: 

TITLE: President

DATE: 12/19/24

FULL LEGAL NAME OF PROVIDER:

Carlos Vargas

Vargco, LLC

\_\_\_\_\_

ATTACHMENT "J"  
E-VERIFY AFFIDAVIT

STATE OF Florida  
COUNTY OF Duval

I, Carlos Vargas (hereinafter "Affiant"), being duly authorized by and on behalf of Vargco, LLC (hereinafter "Contractor") hereby swears or affirms as follows:

1. Contractor understands that E-Verify, authorized by Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), is a web-based system provided by the United States Department of Homeland Security, through which employers electronically confirm the employment eligibility of their employees.
2. For the duration of Contract No. 2016R (hereinafter "Agreement"), in accordance with section 448.095, F.S., Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor and shall expressly require any subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor.
3. Contractor shall comply with all applicable provisions of section 448.095, F.S., and will incorporate in all subcontracts the obligation to comply with section 448.095, F.S.
4. Contractor understands and agrees that its failure to comply with all applicable provisions of section 448.095, F.S. or its failure to ensure that all employees and subcontractors performing work under the Agreement are legally authorized to work in the United States and the State of Florida constitute a breach of the Agreement for which St. Johns County may immediately terminate the Agreement without notice and without penalty. The Contractor further understands and agrees that in the event of such termination, Contractor shall be liable to the St. Johns County for any costs incurred by the St. Johns County resulting from Contractor's breach.

DATED this 19th day of December, 2024.

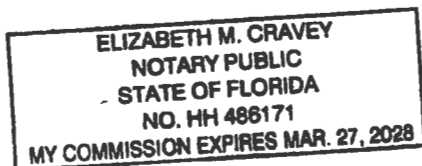
[Signature]  
Signature of Affiant

Carlos Vargas  
Printed Name of Affiant

President  
Printed Title of Affiant

Vargco, LLC  
Full Legal Name of Consultant/Contractor

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this 19th day of December, 2024, by Affiant, who is personally known to me or has produced \_\_\_\_\_ as identification.



[Signature]  
Notary Public  
My Commission Expires: MAR 27, 2028

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "K"  
EQUAL OPPORTUNITY REPORT STATEMENT

The Bidder shall complete the following statement by signing this form where indicated. Failure to complete this form may be grounds for rejection of bid:

The awarded Contractor shall comply with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as amended) prohibiting employment discrimination and shall comply with the regulations and guidelines promulgated pursuant to this Act by the Secretary of the Interior and the Heritage Conservation and Recreation Service.

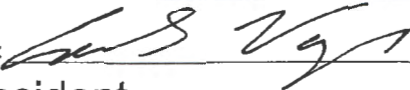
During the performance of this contract, the awarded Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub-Contractor or vendor. The Contractor will take such

action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a sub-Contractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Handwritten Signature of Authorized Principal(s) of Bidder:

NAME (print): Carlos Vargas

SIGNATURE: 

TITLE: President

FULL LEGAL NAME OF BIDDER: Vargco, LLC

DATE: 12/19/24

ATTACHMENT "L"

Affidavit Regarding the Use of Coercion for Labor and Services

Section 787.06(13), Florida Statutes requires all nongovernmental entities executing, renewing, or extending a contract with a governmental entity to provide an affidavit signed by an officer or representative of the nongovernmental entity under penalty of perjury that the nongovernmental entity does not use coercion for labor or services as defined in that statute.

As an officer or authorized representative of Bidder, I certify that the company identified below does not, for labor or services:

- Use or threaten to use physical force against any person;
- Restrain, isolate, or confine or threaten to restrain, isolate, or confine any person without lawful authority and against her or his will;
- Use lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied toward the liquidation of the debt, the length and nature of the labor or services are not respectively limited and defined;
- Destroy, conceal, remove, confiscate, withhold, or possess any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification document, of any person;
- Cause or threaten to cause financial harm to any person;
- Entice or lure any person by fraud or deceit; or
- Provide a controlled substance as outlined in Schedule I or Schedule II of s. 893.03 to any person for the purpose of exploitation of that person.

Under penalties of perjury, I declare and affirm that I have read the foregoing document and that the facts stated in it are true and correct.

DATED this 19th day of December, 2024.

*Carlos Vargas*  
Signature of Affiant

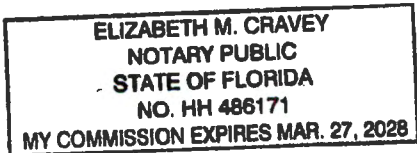
Carlos Vargas  
Printed Name of Affiant

President  
Printed Title of Affiant

Vargco, LLC  
Full Legal Name of Bidder

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this 19th day of December, 2024, by Affiant, who is personally known to me or has produced as identification.

*Elizabeth S*  
Notary Public  
My Commission Expires: MAR 27, 2028




ATTACHMENT "M"  
SCRUTINIZED COMPANIES LIST

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies, for products or services over \$1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Bidder, I hereby certify that the company identified below is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject the company to civil penalties, attorney's fees, and/or costs.

Handwritten Signature of Authorized Principal(s):

NAME (print): Carlos Vargas

SIGNATURE: 

TITLE: President

NAME OF FIRM: Vargco, LLC

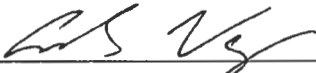
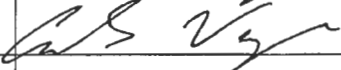
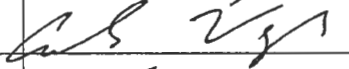
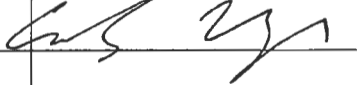
DATE: 12/19/24



**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT N"  
ACKNOWLEDGEMENT OF ADDENDA**

Bidder hereby acknowledges receipt of the following Addenda, issued by the County and incorporated into and made a part of the IFB Documents. By acknowledging the Addenda listed below, Bidder hereby certifies that the information, clarifications, revisions, or other items included in each Addenda have been incorporated into the Bidder's Bid. Failure to acknowledge and incorporate issued Addenda may result in a Bidder being deemed non-responsive to the requirements of the IFB and removed from further consideration.

<b>ADDENDUM NUMBER</b>	<b>DATE RECEIVED</b>	<b>PRINT NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>	<b>TITLE OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>	<b>SIGNATURE OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>
1	11/25/24	Carlos Vargas	President	
2	11/27/24	Carlos Vargas	President	
3	11/27/24	Carlos Vargas	President	
4	12/13/24	Carlos Vargas	President	



VARGCON-01

DLECATES

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
12/12/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Cecil W. Powell & Company 219 N. Newnan Street Jacksonville, FL 32202	CONTACT NAME: <b>Dan LeCates</b>	
	PHONE (A/C, No, Ext): <b>(904) 353-3181</b>	FAX (A/C, No): <b>(904) 353-5722</b>
E-MAIL ADDRESS:		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : <b>Travelers Prop Cas Co of Am</b>		<b>25674</b>
INSURER B : <b>The Travelers Indemnity Co</b>		<b>25658</b>
INSURER C : <b>Travelers Cas &amp; Sur Co of Am</b>		<b>31194</b>
INSURER D :		
INSURER E :		
INSURER F :		

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A X	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input type="checkbox"/> OCCUR <input checked="" type="checkbox"/>			DT-CO-3T718745-TIL-24	5/22/2024	5/22/2025	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMPI/OP AGG \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:						
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRE AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			BA-3T718850-24-26-G	5/22/2024	5/22/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
A X	UMBRELLA LIAB EXCESS LIAB DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			CUP-3T719140-24-26	5/22/2024	5/22/2025	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	UB-3T718930-24-26-G	5/22/2024	5/22/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
A	Equipment Floater			QT-660-3T848552-TIL-24	5/22/2024	5/22/2025	Per Item 200,000
A	Equipment Floater			QT-660-3T848552-TIL-24	5/22/2024	5/22/2025	200,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

## CERTIFICATE HOLDER

## CANCELLATION

St. Johns County 500 San Sebastian View Saint Augustine, FL 32084	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

BID BOND

STATE OF FLORIDA  
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that Vargco LLC as Principal, and Old Republic Surety Company as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of Five Percent of Bid Amount Dollars (\$ 5% ) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated , 2020th day of December 2024.

For  
**FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE**  
St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this day December A.D., 2024, the name and corporate seal of each corporate party being hereto affixed and 16th these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).  
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

[Signature]  
[Signature]  
[Signature]

CECIL VARGAS

PRINCIPAL:

Vargco LLC

NAME OF FIRM:

[Signature]

SIGNATURE OF AUTHORIZED  
OFFICER (AFFIX SEAL)

President

TITLE

1950 San Marco Blvd Suite 2

BUSINESS ADDRESS

Jacksonville RFL 32207

CITY

STATE

WITNESS:

[Signature]

SURETY:

Old Republic Surety Company

CORPORATE SURETY

[Signature]

ATTORNEY-IN-FACT (AFFIX SEAL)

PO Box 789

BUSINESS ADDRESS

Greensburg PA

CITY

STATE

Cecil W. Powell & Company

NAME OF LOCAL INSURANCE AGENCY





# OLD REPUBLIC SURETY COMPANY

## POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint: **FITZHUGH K. POWELL, JR, ROBERT T. THEUS, BENJAMIN KNOX POWELL** of JACKSONVILLE, FL

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds), as follows:

### ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18, 1982.

RESOLVED that, the president, any vice-president or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognition, or suretyship obligation shall be valid and binding upon the Company

- (i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or
- (ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or
- (iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognition, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 9th day of May, 2023

Karen J. Haffner  
Assistant Secretary



OLD REPUBLIC SURETY COMPANY

Alan Pavlic  
President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 9th day of May, 2023, personally came before me, Alan Pavlic and Karen J Haffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.



Kathryn R. Pearson  
Notary Public

My Commission Expires: September 28, 2026

(Expiration of notary's commission does not invalidate this instrument)

### CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

92-2350



Signed and sealed at the City of Brookfield, WI this 16th day of December, 2024

Karen J. Haffner  
Assistant Secretary

ORSC 22262 (3-06)

CECIL W. POWELL & CO.

# Flagler Estates Fire Station #21 & Sheriff's Office Rev. 01 VE Study

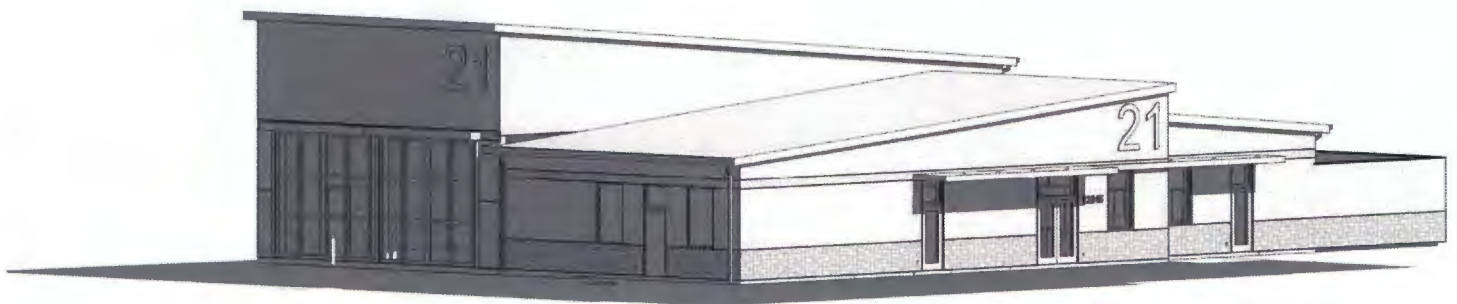
**IFB No:** 2016R

**Location:** 4630 Melanie Street, Hastings, FL 32145

**To:** The Board of County Commissioners of St. Johns County, Florida

**Presented:** January 14, 2025

**By:** Vargco, LLC



Build with Purpose.

Date: January 14, 2025



**To: Diana M. Fye, BAS, NIGP-CPP, CPPB**  
Senior Procurement Coordinator, Purchasing Department  
St. Johns County Board of County Commissioners  
500 San Sebastian View, St. Augustine, FL 32084

**Re: IFB No 2016R - Fire Station #21 & Sheriff's Office: Revised Value Engineering (VE) Study**

Dear Ms. Fye,

Vargco, LLC (Vargco) is pleased to submit this revised VE Study for the Flagler Estates Fire Station #21 & Sheriff's Office to the Board of County Commissioners of St. Johns County. To assist the County in making the most data-driven decision possible for advancing this project, enclosed are the following:

- » a schedule of values (SOV) detailing Vargco's Base Bid submission
- » a SOV showing selected alternates and VE options
- » relevant, notated sketches showing how VE items were assessed
- » sketches showing a concept of metal walls at the apparatus bay
- » a rollup door option for reference
- » a description of proposed alternate HVAC equipment

Vargco is committed to providing the highest quality services to the County, including this VE service. Vargco also understands the County's goal to deliver this project at the greatest value, minimizing costs. We will continue to look for, investigate, and propose additional VE options as conversations continue and this project progresses. If there are any questions, please feel free to call me direct at any time.

Respectfully,

A handwritten signature in blue ink, appearing to read "Carlos Vargas".

**Carlos Vargas**  
President

1950 San Marco Blvd., Suite 2  
Jacksonville, FL 32207

**M:** 904 237 3547

**O:** 904 387 6677

[carlos@vargco.com](mailto:carlos@vargco.com)

vargco.com

CGC1524290

Project: Fire Station #21		ORIGINAL SOV		VARGCO  Build with Purpose.	
Address: 4630 Melanie Street, Hastings, FL 32145					
Date: 12/19/24					
Div.	Summary Work Package	Cost of Work	% of Dir. Wrk.	Recommended	Notes
<b>General Conditions</b>					
01a	General Conditions	\$196,479	5.3%	Various	
01b	General Conditions - Staff	\$306,340	8.3%	Vargco	
01c	Permitting	\$10,000	0.3%		allow.
<b>General Conditions Subtotal:</b>		<b>\$512,819</b>	<b>13.6%</b>		
<b>Direct Work</b>					
02a	Existing Conditions	\$0	0.0%		not required
02b	Selective Demolition - Site	\$39,029	1.1%	Flamingo	
03a	Site Concrete Paving	\$276,052	7.4%	Flamingo	
03b	Site Concrete (excl. paving)	\$29,031	0.8%	Flamingo	
03c	Building Concrete	\$155,347	4.2%	Capital Conc. & Mason.	
04	Masonry	\$188,468	5.1%	Capital Conc. & Mason.	Tailored Foam Insul.
05a	Metals	\$175,700	4.7%	Division 5 Steel	
05b	Misc. Metals - Stairs, Rails, Etc.	\$0	0.0%		incl. in 05a
05c	Bollards	\$12,000	0.3%	Flamingo	
06	Millwork	\$69,300	1.9%	Doerr's Custom Cabs.	
07a	Roofing	\$90,075	2.4%	Ford Roofing Systems	
07b	Building Exterior	\$109,896	3.0%	BeStucco	allow. for mtl. soffit, wall cap
07c	Sealants	\$11,500	0.3%		allow.
08a	Apparatus Bay Doors	\$238,245	6.4%	American Roll-Up	
08b	Glass/Glazing and Storefront	\$76,450	2.1%	Perimeter Glass	
08c	Doors, Frames, Hardware	\$83,694	2.3%	Taylor Cotton Ridley	
08d	Window Film	\$1,500	0.0%		allow.
09a	Drywall, Framing, Ceilings, Insulation, and Paneling	\$165,886	4.5%	Baylor, L&D Cig.	Genie Insul.
09b	Solid Surface Wall Panels	\$12,204	0.3%	Doerr's Custom Cabs.	
09c	Paint	\$58,780	1.6%	S. David and S&K	incl. sealed conc.
09d	Flooring, Base, and Tile	\$61,496	1.7%	Lian Flooring	
09e	Acoustical Wall Panels	\$2,007	0.1%	Doerr's Custom Cabs.	
10a	Specialty Signage (Illuminated)	\$14,388	0.4%	Harbinger	
10b	Interior Signage (incl. fire extinguishers)	\$4,699	0.1%	Environmental Graphics	
10c	Small Canopies and Awnings	\$21,032	0.6%	Resolute Fab.	
10d	Lockers	\$17,570	0.5%	Southern Storage	
12	Furniture, Fixtures, and Equipment	\$26,583	0.7%		self-perform; incl. shades
21a	Fire Suppression/Sprinklers	\$48,657	1.3%	IMC Fire Protection	
21b	Intumescent Coating	\$0	0.0%		incl. in 09a
22	Plumbing	\$170,098	4.6%	G & W Welborn	
23	Mechanical	\$338,904	9.1%	All Weather Contractors	
25	Controls and Controls Panels	\$0	0.0%		excluded
26a	Site Electrical Service	\$0	0.0%		incl. in 26b
26b	Electrical	\$455,063	12.3%	Coastal Electric Comp.	incl. lightning protection
27	Low Voltage	\$41,498	1.1%	Life Safety Designs	
28	Fire Alarm	\$15,897	0.4%	Life Safety Designs	
31	Earthwork, SWPPP, and MOT	\$218,682	5.9%	Flamingo	
32a	Exterior Striping and Markings	\$533	0.0%	Flamingo	
32b	Permanent Fencing and Gates	\$13,935	0.4%	Superior Fence & Rail	
32c	Site Accessories and Signage	\$11,046	0.3%	Flamingo	flag pole incl.
32d	Landscape and Irrigation	\$59,461	1.6%	Bold City Outdoors	trim exist. trees incl.
33a	Site Utilities	\$413,415	11.1%	Flamingo	
33b	Wells	\$107,000	2.9%	IMC Fire Protection	incl. fire and potable
33c	Septic and Drain Field	\$40,253	1.1%	Flamingo	
xx	Estimated Buy-Down	(\$164,703)		Vargco	procurement negotiations
<b>Direct Work Subtotal:</b>		<b>\$3,710,671</b>	<b>red</b>	if greater than approx. 5% dir. wk.	
<b>Insurances</b>					
97a	Bond - Bid	\$0			
97b	Bond - P and P	\$43,725			
98a	Builder's Risk Insurance	\$0			
98b	General Liability Insurance	\$31,676			
98c	Project Resources	\$12,987			
<b>Insurances Subtotal:</b>		<b>\$88,389</b>			
<b>Overhead, Profit, and Contingency</b>					
99a	Bid Accuracy Contingency	\$37,107			
99b	Overhead and Profit	\$150,916			
<b>Overhead, Profit, and Contingency Subtotal:</b>		<b>\$188,022</b>			
<b>TOTAL</b>		<b>\$4,499,901</b>			



<b>Project:</b>	<b>Fire Station #21</b>			
<b>Address:</b>	<b>4630 Melanie Street, Hastings, FL 32145</b>	<b>ALTS. &amp; VE</b>	<b>VARGCO</b> 	<b>Build with Purpose.</b>
<b>Date:</b>	<b>01/14/25</b>			

Tag	Summary Work Package	Cost of Work	Source	Notes
<b>Alternates</b>				
Bid Alt. 2	Reduce Spec. for Apparatus Bay Doors	(\$166,210)	Industrial Door	sectional drs. at apparatus bay ilo. bi-fold drs.
Bid Alt. 5	Remove Canopies	(\$21,532)	Resolute Fab.	
Bid Alt. 7	Remove Building Automation	(\$40,722)	All Weather Contractors	standard ctrls. ilo. sys. intercommunication
Bid Alt. 8	VE Floor Plan	(\$72,605)	Various	reduce sq.ft. of sheriff's office
Bid Alt. 1	Bi-Directional Antenna	\$40,000		value provided by sjc
<b>Selected Alternates Subtotal:</b>		(\$261,069)		

<b>Value Engineering - SiteWork</b>				
VE-04	Reduce Concrete Square Footage	(\$14,767)	Flamingo, Bold City	see C-301A VE
	includes removal of small portions of sidewalk, 5 parking spaces, and some patio/drive area			
VE-06	Sheet Flow Downspouts/Storm Leader Reduction	(\$21,682)	Flamingo	see C-500 VE
	includes removal of underground pipe running from downspout to storm system and the addition of splash blocks at bottom of downspouts			
VE-07	Relocate Pump(s) Closer to the Building	(\$6,218)	Flamingo	see C-500 VE
	includes relocation of both the potable water and fire pumps from plan-east of building to plan-southwest			
VE-08	Locate Building Electrical Closer to Pole/Utility Service	(\$1,175)	Coastal Electric Comp.	see C-500 VE
	includes relocation of ATS from plan-east of building to plan-north			
<b>Value Engineering - Site Work Subtotal:</b>		(\$43,842)		

<b>Value Engineering - Architectural</b>				
VE-11	Alternate Roofing Spec.	(\$6,885)	Ford Roofing Systems	mill finish metal roof ilo. kynar
VE-13	Alternate Overhead Doors Spec. at Apparatus Bay	(\$12,300)	Industrial Door	see A-100 VE; roll-up ilo. sectional drs.
	additional deduction from Alt. 2 to replace alternate sectional doors at apparatus bay with roll up doors; see enclosed shop drawing			
VE-14	Corner Guard Spec. Reduction	(\$360)		incl. 4 ft. plastic guards
VE-15	Remove Stucco and Stone Veneer Scope	(\$21,943)	Be Stuc., Capital, S. Dave	
	includes removal of stucco and stone veneer systems from exterior of building; replaces exterior finish with split face block, block fill primer, and paint			
VE-16	Day Room Bump Out Re-design; Perimeter Soffit Removal	(\$41,500)	Capital, Div. 5 Steel.	A-100 VE, A-110 VE, A-313 VE
	removes trapezoidal shaped 'bump-out' at day room, allowing block wall to run straight; eliminates beam abv. bump-out and concrete lid abv. app. bay rms.			
VE-17	Tile ilo. Solid Surface Wall/Shower Panels	(\$11,204)	Doerr's Custom Cabs.	
<b>Value Engineering - Architectural Subtotal:</b>		(\$94,192)		

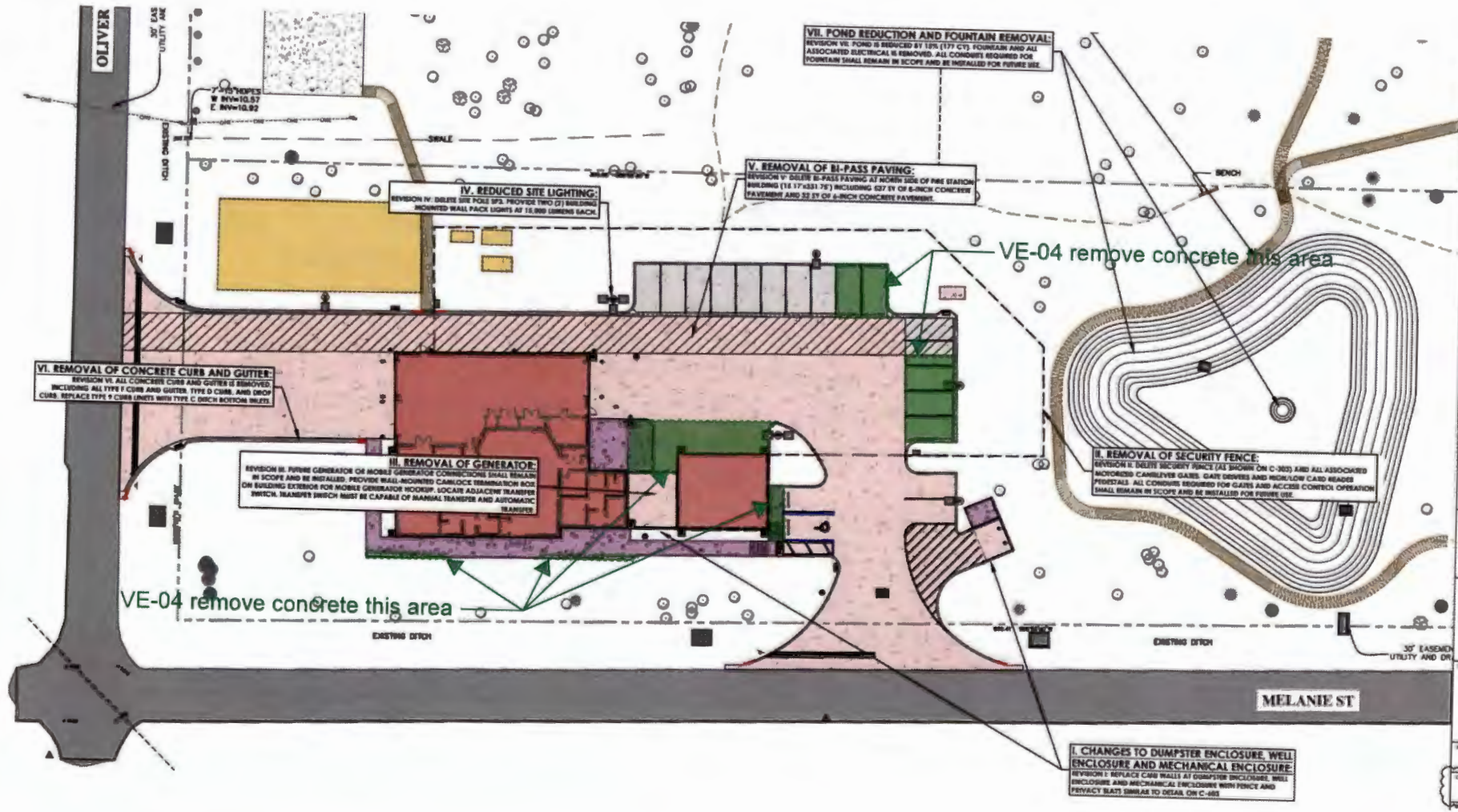
<b>Value Engineering - MEP Systems Subtotal:</b>				
VE-18b	Alternate Feeders	(\$17,250)	Coastal Electric Comp.	aluminum pwr. feeds into building ilo. copper
VE-19	Alternate Light Fixture Package	(\$2,679)	Coastal Electric Comp.	alt. mfr. ilo. primarily cooper metalux
VE-20	Alternate HVAC Equipment	(\$2,885)	All Weather Contractors	alt. heaters, EFs, and RGDs
	includes QMark heaters ilo. spec'd Reznor, Hart & Cooley distribution devices ilo. spec'd Titus; Dayton and Broan fans ilo. spec'd Greenheck			
<b>Value Engineering - MEP Systems Subtotal:</b>		(\$22,814)		

<b>Value Engineering - Misc. Items</b>				
VE-22	Remove Cold Water Insulation	(\$3,981)	G & W Welborn	exclude insul. from all cold-water lines
VE-24	Mtl. Walls ilo. Block at Apparatus Bay; Shorter Trench Drains	(\$72,329)	Capital, Div. 5, Leon Stl.	see A-100 VE
	removes split face CMU at app. bay (added in VE-15), interior CMU walls at app. bay, and mtl. roof; adds new PEMB walls and roof and alt. interior partitions			
<b>Value Engineering - Misc. Items Subtotal:</b>		(\$76,310)		
<b>Total Alternates and VE:</b>		(\$498,227)		

<b>BASE PROJECT TOTAL</b>	<b>\$4,499,901</b>
<b>SELECTED ALTS. &amp; VE PROJECT TOTAL</b>	<b>\$4,001,674</b>

VE-25	8" Standard Block ilo. Split-Face	(\$16,712)	Capital Conc. & Mason.	
	removes split face CMU at remaining block building exterior (added in VE-15); note some split-face was removed in VE-24; replaces with standard 8" CMU			

<b>SELECTED ALTS. &amp; ADDITIONAL VE PROJECT TOTAL</b>	<b>\$3,984,962</b>
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**VI. REMOVAL OF CONCRETE CURB AND GUTTER:**  
 REVISION VI. ALL CONCRETE CURB AND GUTTER IS REMOVED INCLUDING ALL TYPE F CURB AND GUTTER, TYPE D CURB, AND DROP CURB. REPLACE TYPE F CURB INLETS WITH TYPE C BRUSH BOTTOM INLETS.

**III. REMOVAL OF GENERATOR:**  
 REVISION III. FUTURE GENERATOR OR MOBILE GENERATOR CONNECTIONS SHALL REMAIN IN SCOPE AND BE INSTALLED. PROVIDE WALL MOUNTED CARBONIC TERMINATION BOX ON BUILDING EXTERIOR FOR MOBILE GENERATOR HOODS. LOCATE ADJACENT TRANSFER SWITCH. TRANSFER SWITCH MUST BE CAPABLE OF MANUAL TRANSFER AND AUTOMATIC TRANSFER.

**IV. REDUCED SITE LIGHTING:**  
 REVISION IV. DELETE SITE POLE S.F.A. PROVIDE TWO (2) BUILDING MOUNTED WALL PACK LIGHTS AT 15,000 LUMENS EACH.

**V. REMOVAL OF BI-PASS PAVING:**  
 REVISION V. DELETE BI-PASS PAVING AT NORTH SIDE OF FIRE STATION BUILDING (18 17'x31 76") INCLUDING 637 SY OF 6-INCH CONCRETE PAVEMENT AND 32 SY OF 4-INCH CONCRETE PAVEMENT.

**VII. POND REDUCTION AND FOUNTAIN REMOVAL:**  
 REVISION VII. POND IS REDUCED BY 13% (177 C.Y.). FOUNTAIN AND ALL ASSOCIATED ELECTRICAL IS REMOVED. ALL CONCRETE REQUIRED FOR FOUNTAIN SHALL REMAIN IN SCOPE AND BE INSTALLED FOR FUTURE USE.

**I. CHANGES TO DUMPSTER ENCLOSURE, WELL ENCLOSURE AND MECHANICAL ENCLOSURE:**  
 REVISION I. REPLACE CURB WALLS AT DUMPSTER ENCLOSURE, WELL ENCLOSURE AND MECHANICAL ENCLOSURE WITH FENCE AND PERVAZIC BLATS SIMILAR TO DETAIL ON C-462.

VE-04 remove concrete this area

VE-04 remove concrete this area

Prepared For:  
**ST. JOHNS COUNTY  
 FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Scale:

Client:

**Passero Associates**  
 10000 W. US HWY 1  
 SUITE 100  
 PALM BEACH, FL 33411  
 (561) 840-1000  
 www.passeroassociates.com

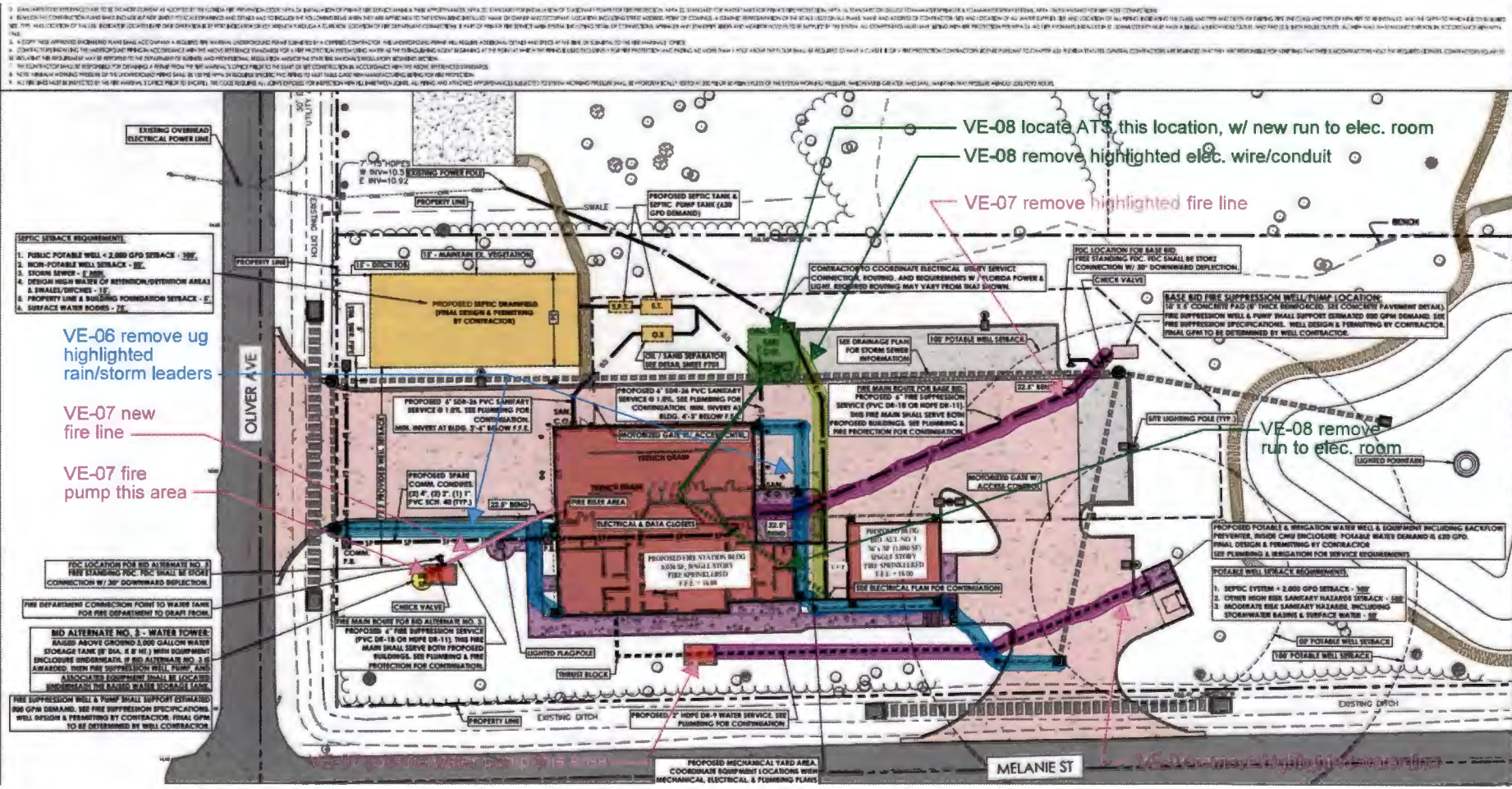
Principal in Charge: Andrew Mottola  
 Project Manager: M. BRUNETTI  
 Civil Engineer: M. BRUNETTI  
 Designer: A. LEST

Project Name:

Project Location:  
**4830 MELANIE STREET  
 SLC - FLAGLER ESTATES  
 FIRE STATION**  
 HUNTERS  
 COUNTY  
 ST. JOHNS COUNTY, FLORIDA

Project No.:  
**20213261.0012**

Drawing No.:  
**C-301A VE**



**ST. JOHNS COUNTY FIRE AND RESCUE**

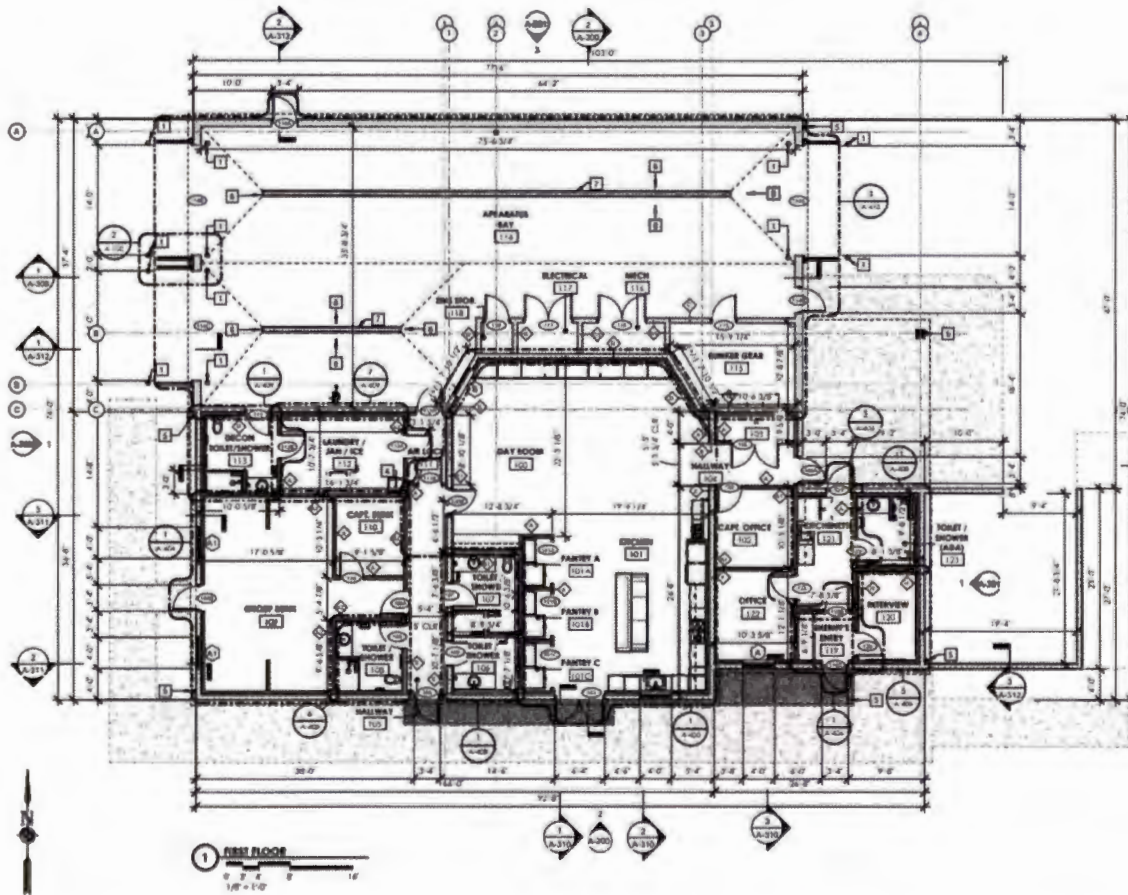
ST. JOHNS COUNTY, FLORIDA

**Passero Associates**  
 4630 MELANIE STREET  
 BLC - FLAGLER ESTATES  
 FIRE STATION  
 ST. JOHNS COUNTY, FLORIDA

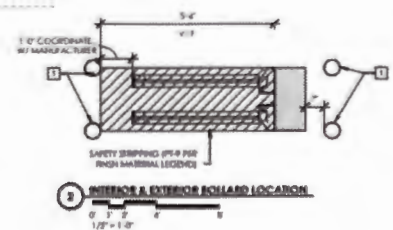
Project No: 20213261.0012  
 Drawing No: C-500 VE

DATE: 11/15/2024

PROJECT LOCATION:  
 4630 MELANIE STREET  
 BLC - FLAGLER ESTATES  
 FIRE STATION  
 ST. JOHNS COUNTY, FLORIDA



ALTERNATE STORAGE/EMERGENCY BUILDING, REFER TO ALTERNATE PLANS



CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

11111 Passero Associates, Inc. 11111  
11111 Passero Associates, Inc. 11111  
11111 Passero Associates, Inc. 11111

NO.	DATE	BY	DESCRIPTION

CONTRACTOR SHALL VERIFY DIMENSIONS TO BE WITHIN 1/8\"/>

**FLOOR PLAN**

**4630 MELANIE STREET**

**FIRE STATION #21 & SHERIFF'S OFFICE**

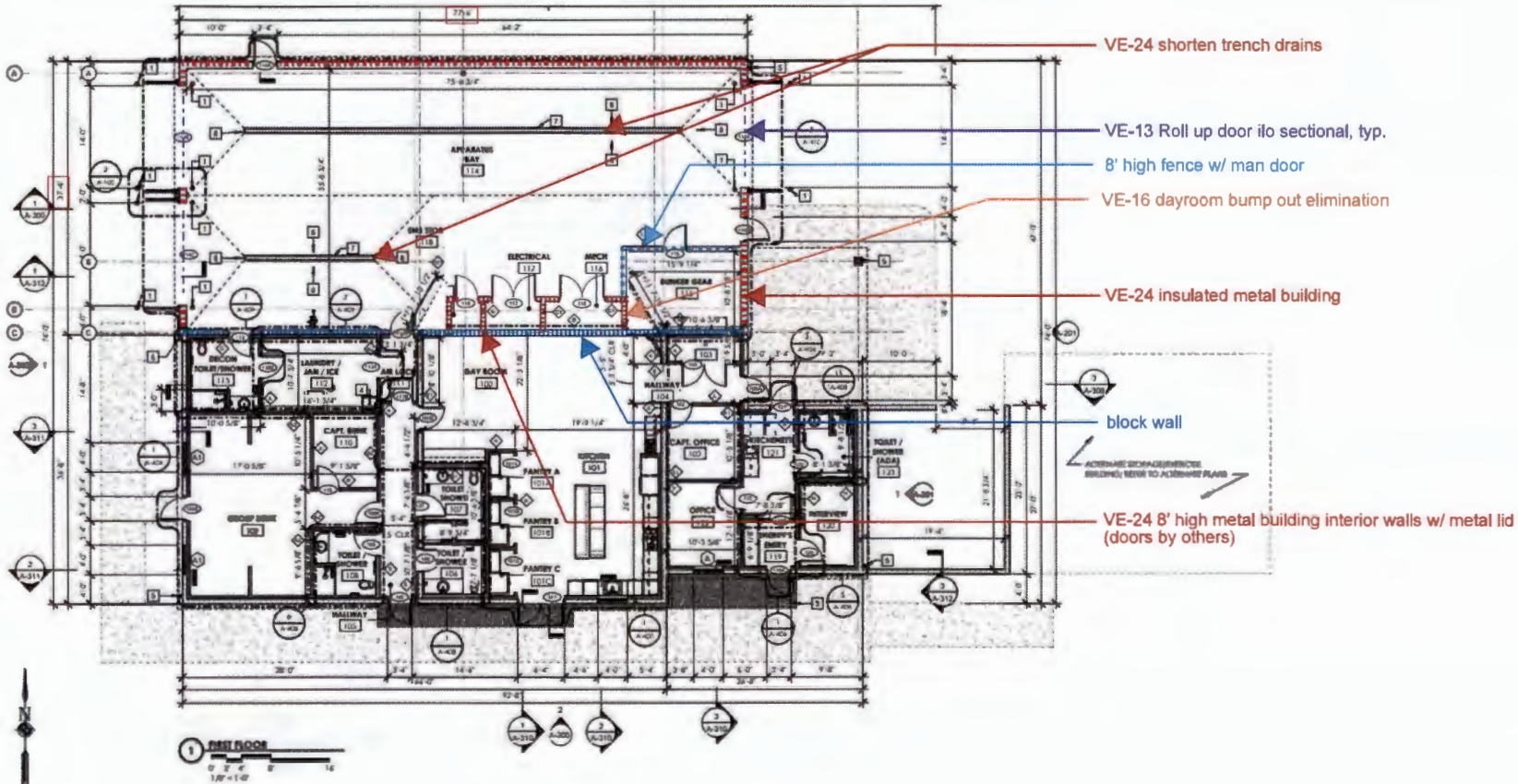
ST. JOHNS COUNTY  
COUNTY ST. JOHN

20213261.0012

**A-100**

**BID SET**

NOVEMBER 15, 2024



VE-24 shorten trench drains

VE-13 Roll up door ilo sectional, typ.

8' high fence w/ man door

VE-16 dayroom bump out elimination

VE-24 insulated metal building

block wall

VE-24 8' high metal building interior walls w/ metal lid (doors by others)

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

10754 HALLS FERRY ROAD, SUITE 100 ST. AUGUSTINE, FL 32080  
PH: 321-287-1111 FAX: 321-287-1112  
WWW.PASSEROASSOCIATES.COM

NO.	DATE	REV.	DESCRIPTION

**FLOOR PLAN**

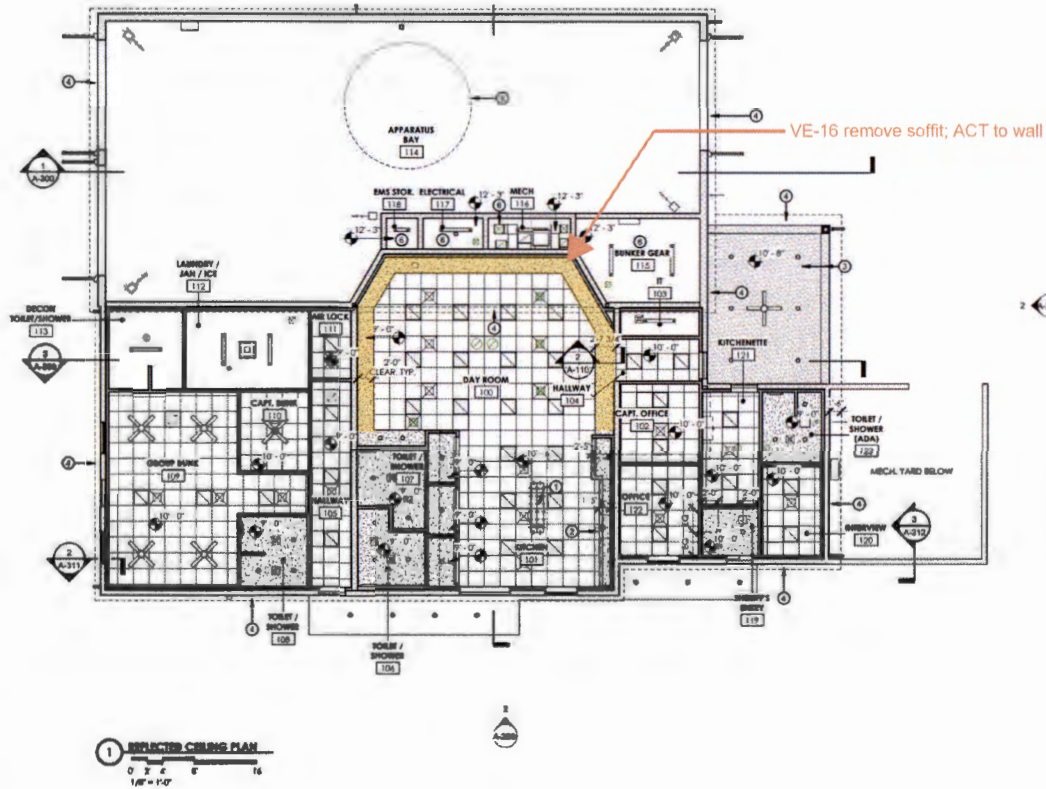
**4630 MELANIE STREET**

**FIRE STATION #21 & SHERIFF'S OFFICE**

10809/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

**20213261.0012**

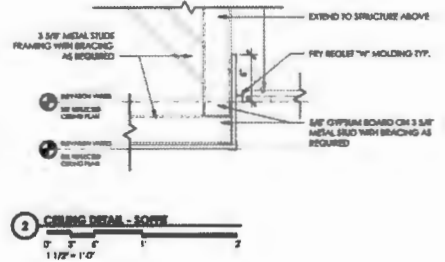
**A-100 VE**



- EMERGENCY ENGINE
- MECHANICAL - ROUND DUCT (EXHAUST AIR)
- MECHANICAL - ROUND DUCT (SUPPLY AIR)
- MECHANICAL - ROUND DUCT (RETURN AIR)
- MECHANICAL - SQUARE DUCT (EXHAUST AIR)
- MECHANICAL - SQUARE DUCT (SUPPLY AIR)
- MECHANICAL - SQUARE DUCT (RETURN AIR)
- MECHANICAL - SUPPLY DIFFUSER
- MECHANICAL - SUSPENDED LINE HEATER
- MECHANICAL - FIBERGLASS APPARATUS BAY TIESE
- MECHANICAL - RETURN GRILLE
- MECHANICAL - CEILING CASSETTE

- KEYNOTES**
- 1 POT RACK CENTERED ON GYMNAST ISLAND, PROVIDE 16 BODS AND ADDITIONAL SUPPORT STRUCTURE AS REQUIRED FOR OVERHEAD ATTACHMENTS.
  - 2 RESIDENTIAL HOOD WITH ANSUL SYSTEM.
  - 3 STRUCT. SOFFIT, SEE DETAILS.
  - 4 METAL SOFFIT ABOVE.
  - 5 ALTERNATE S-C.
  - 6 APPARATUS BAY FAN PER ELECTRICAL.
  - 7 CEILING TO RECEIVE CLOSED-CELL SPRAY FOAM WITH MINIMUM 2\"/>

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



CITY: ST. JOHNS COUNTY  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**Passero Associates**  
 1208 CREEK CIRCLE, SUITE 200  
 ST. AUGUSTINE, FL 32086  
 904.827.4388

NO.	DATE	BY	DESCRIPTION

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**REFLECTED CEILING PLAN**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

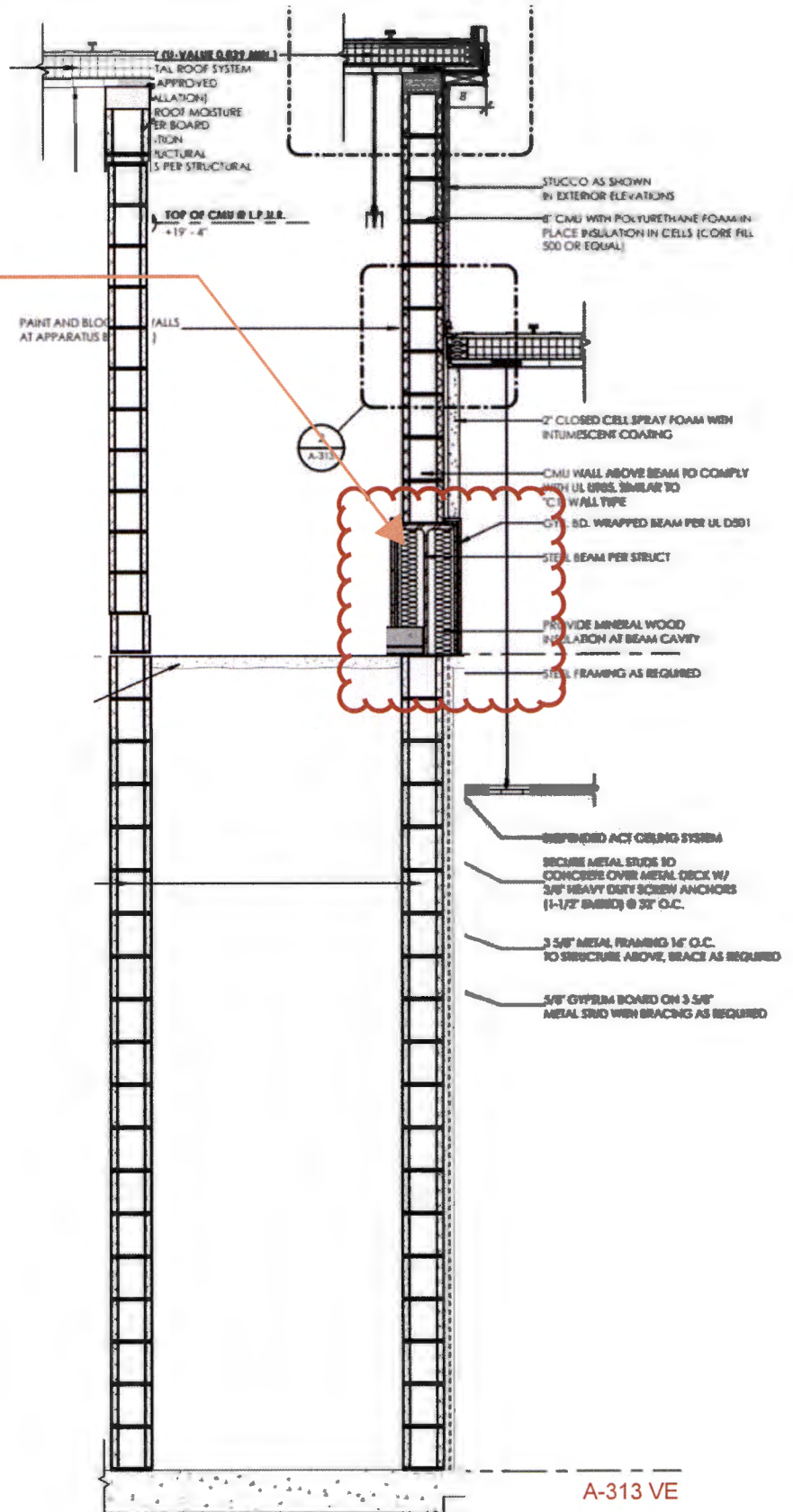
TOWNSHIP: HIGHLAND  
 COUNTY: ST. JOHNS STATE: FLORIDA

PROJECT NO: 20213261.0012

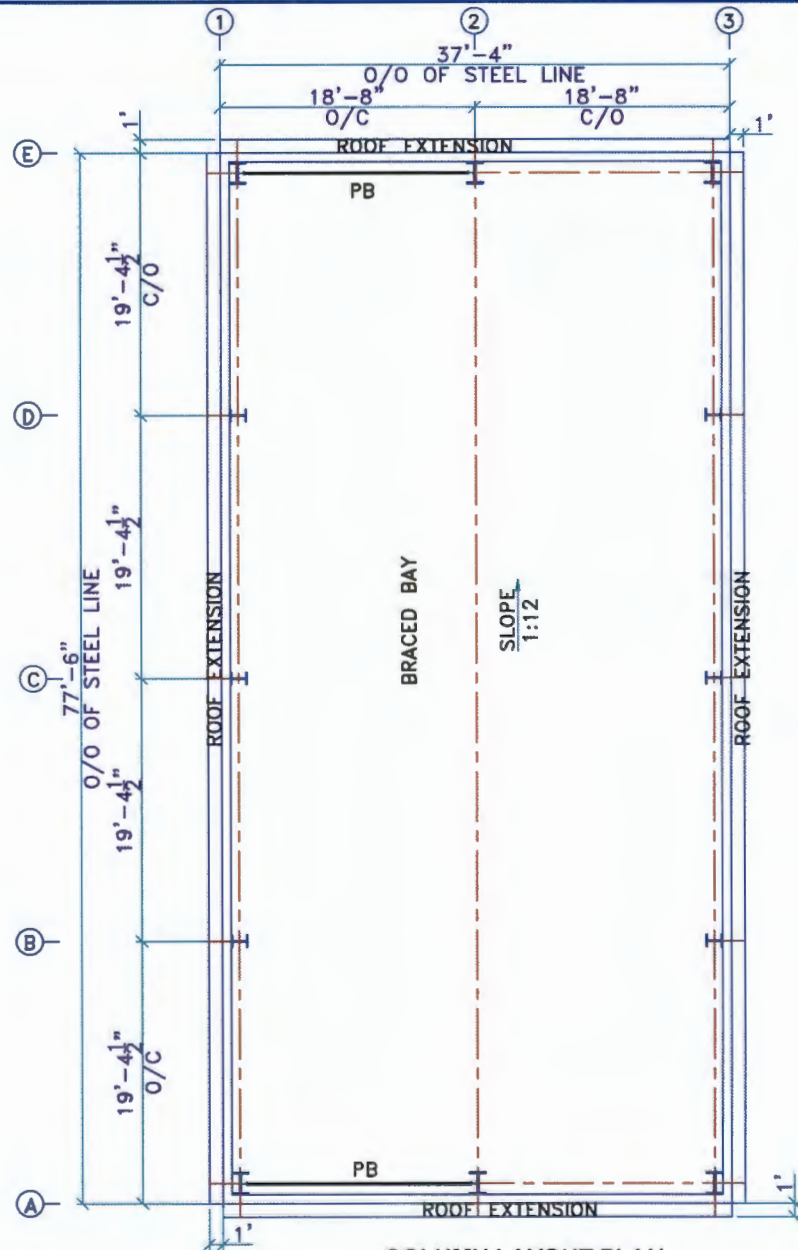
DRAWING NO: **A-110 VE**



VE-16 dayroom bump out elimination  
remove beam; block to deck







**GENERAL NOTES:**

1. All Dimensions are in FEETS (ft)
2. Panel thickness is the Total Coated Thickness (TCT)
3. All Dimensions, Levels Shown in the PROPOSAL DRAWING is indicative only, final design Dimensions, Levels will be shown in our APPROVAL DRAWING in design stage.

This document is PROPOSAL DRAWING data of PHENIX CONSTRUCTION TECHNOLOGIES not for construction.

THE BUILDING HAS BEEN DESIGNED TO SUPPORT IT'S OWN DEAD LOAD PLUS:

DEAD LOAD                    2.5 PSF  
 LIVE LOAD                    20 PSF  
 (REDUCIBLE)  
 WIND SPEED                    147 MPH .  
 SEISMIC PARAMETERS  
 Sa                    0.08  
 S1                    0.043  
 COLLATERAL LOAD  
 (ON ROOF)                    5 PSF

DESIGN CODE            : IBC 2021  
 SERVICEABILITY        : IBC 2021  
 WIND APPLICATION     : IBC 2021

DD	09.01.2025	ARJ	PSR	ESN
REV.	DATE	DRN.	DSN.	CHK.

PROJECT:

**ST. JOHNS COUNTY FIRE**

 CREATION SIMPLIFIED	<b>PHENIX</b> Mb Home,51 Grandtrady Society, Stadium Road,Ahmedabad-380 014 Ph: +91-79-26402583 FAX: +91-79-26400828 WWW.MBPHENIX.COM
--	--

QUOTE No.                    : 550-663  
 PCT No.                      : 15184  
 BLDG No.                    : A  
 BLDG NAME                 : WARE HOUSE  
 No. OF IDENTICAL BLDG. : ONE

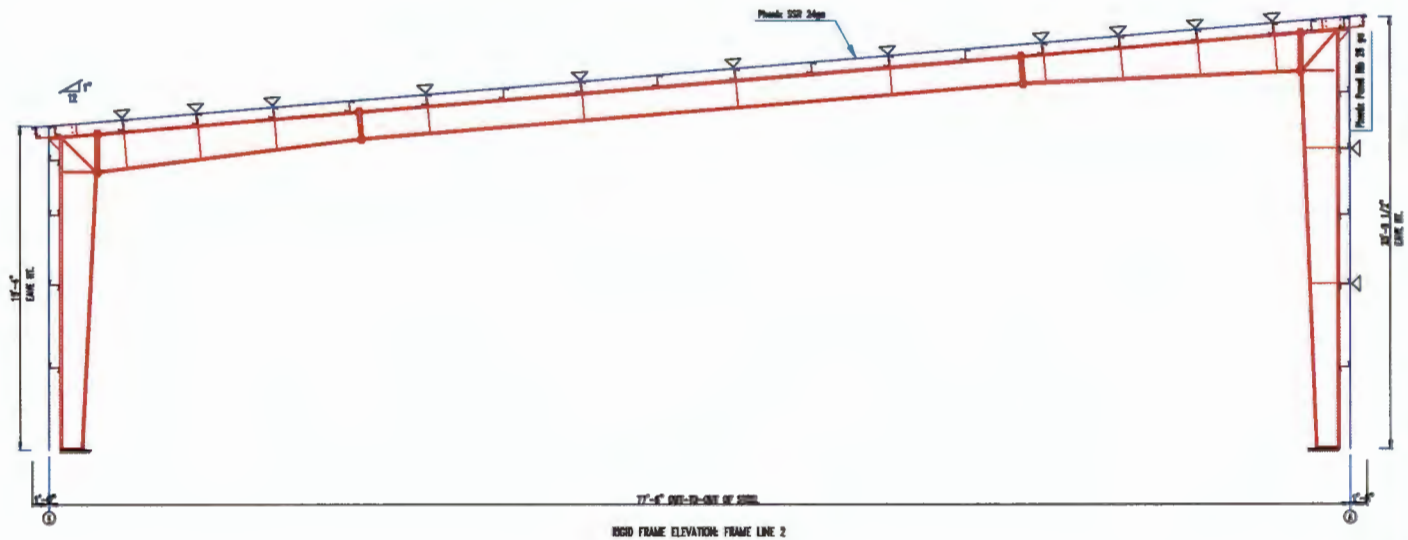
DRAWING TITLE:  
**COLUMN LAYOUT PLAN**

Scale	Sheet Size	Sheet No.
N.T.S	A4	1 OF 4

PB-FULL HT.PORTAL BRACING  
 ALL STEEL COLUMNS STARTS FROM FFL

**COLUMN LAYOUT PLAN**

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RIGID FRAME ELEVATION: FRAME LINE 2

**GENERAL NOTES:**

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00	09.01.2025	ARJ	PSR	ESN
REV.	DATE	DRN.	DSN.	CHK.

PROJECT:  
**ST. JOHNS COUNTY FIRE**

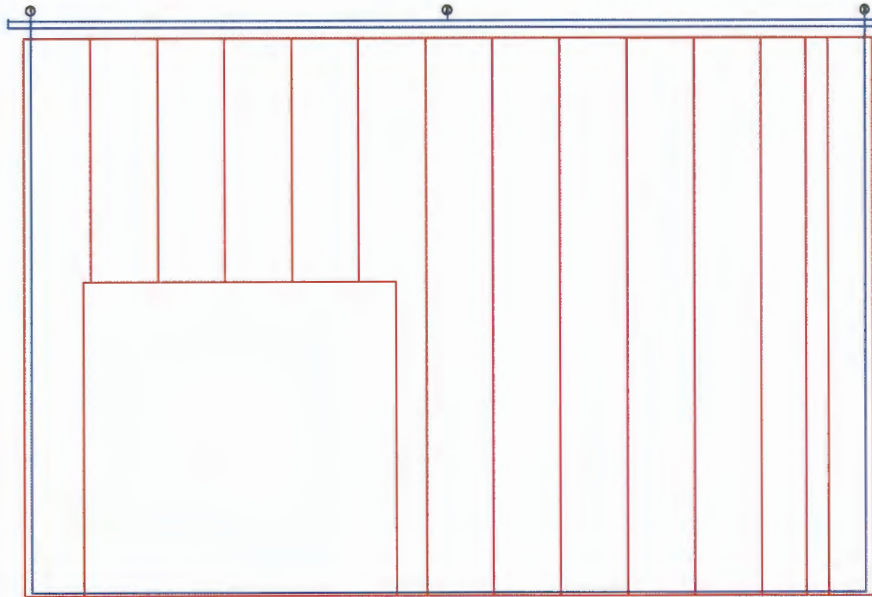
**PHENIX™**  
 Mb House, 51 Chandrabay Society,  
 Stadium Road, Ahmedabad-380 014  
 Ph: +91-79-26405563  
 Fax: +91-79-26400828  
 WWW.MBPHENIX.COM

QUOTE No.	: 550-663
PCT No.	: 15184
BLDG No.	: A
BLDG NAME	: WARE HOUSE
No. OF IDENTICAL BLDG.	: ONE

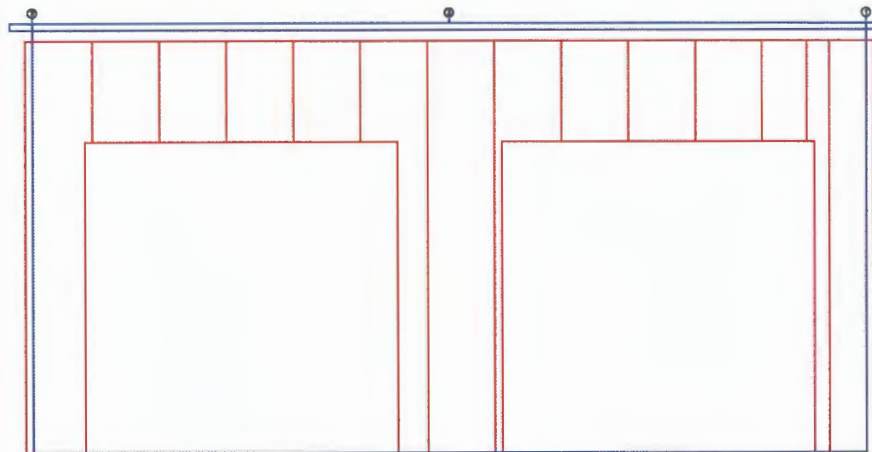
DRAWING TITLE:  
**CROSS SECTION**

Scale	Sheet Size	Sheet No.
N.T.S	A4	2 OF 4

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INTERNAL SHEETING & TRUSS FRAME LINE A  
1/8"=1'-0" (1/4"=1'-0")



INTERNAL SHEETING & TRUSS FRAME LINE C  
1/8"=1'-0" (1/4"=1'-0")

**GENERAL NOTES:**

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This document is PROPOSAL DRAWING data of PHENIX CONSTRUCTION TECHNOLOGIES not for construction.

00	09.01.2025	ARJ	PSR	ESN
REV.	DATE	DRN.	DSN.	CHK.

PROJECT:

**ST. JOHNS COUNTY FIRE**

	<b>PHENIX™</b> 140 House St Chandray Society, Stadium Road, Ahmedabad-380 014 Ph: +91-79-26400583 Fax: +91-79-26400828 WWW.MSPHENIX.COM
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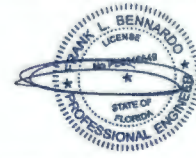
QUOTE No.	: 550-663
PCT No.	: 15184
BLDG No.	: A
BLDG NAME	: WARE HOUSE
No. OF IDENTICAL BLDG.	: ONE

DRAWING TITLE:  
**SIDE WALL SHEETING**

Scale	Sheet Size	Sheet No.
N.T.S	A4	3 OF 4

# STEEL ROLL-UP DOORS

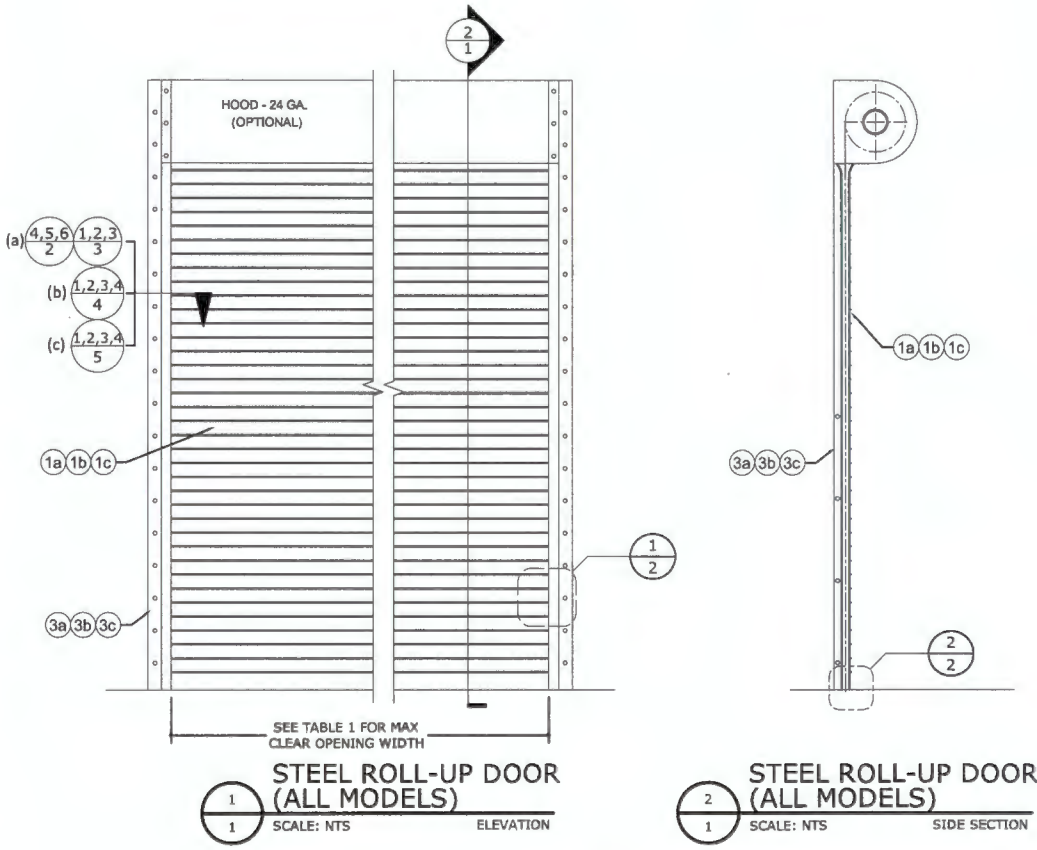
MODELS S10-6065, S10-6565 & S10-100



Digitally signed by  
**Frank Bennardo**  
 Date: 2021.01.26  
 15:01:28 -05'00'

FRANK BENNARDO, P.E.  
 PE# 0046549 CA, 9885  
  
 FL#10706.1

- ### GENERAL NOTES:
1. THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) FOR USE INSIDE AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201, 202, AND 203 STANDARDS. SEE PRODUCT EVALUATION REPORT FOR MORE INFORMATION.
  2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-16 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN (TABLE 1) FOR ANY ASSEMBLY AS SHOWN.
  3. ALLOWABLE DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
  4. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT. THESE INSTALLATION INSTRUCTIONS ARE PART OF A PRODUCT APPROVAL EVALUATION AND SHALL ONLY BE USED IN CONJUNCTION WITH THE EVALUATION REPORT SUBMITTED FOR THE SAME PRODUCT APPROVAL.
  5. SLATS TO BE A.S.T.M. A-653 GR 50 STRUCTURAL QUALITY STEEL WITH MIN. Fy = 50 KSI AND G-90 GALVANIZING PER A.S.T.M. A-653, OR A.I.S.I. 304 SERIES STAINLESS STEEL MANUFACTURED WITH A MINIMUM YIELD STRENGTH OF Fy = 50 KSI.
  6. WINDLOCKS SHALL BE 11 GA PLATED STEEL, A.S.T.M. A-1011
  7. ALL ASSEMBLY BOLTS TO BE S.A.E. GRADE 2 CADMIUM PLATED OR GALVANIZED STEEL.
  8. ALL RIVETS TO BE A.I.S.I. 1035 STEEL, CADMIUM PLATED, STAINLESS STEEL OR ZINC PLATED W/ Fy = 37,000 PSI.
  9. INSULATION MATERIAL SHALL BE EPS-EXPANDED POLYSTYRENE INSULATION MANUFACTURED BY DYPLAST PRODUCTS LLC COMPANY, MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE # 17-1207.05 OR LATEST VERSION.
  10. DOOR MAY BE INSTALLED ON THE INSIDE OR OUTSIDE OF AN EXTERIOR WALL DOOR IMPACTED ON BOTH SIDES.
  11. GUIDE DETAILS CAN BE USED IN ANY COMBINATION.
  12. ROLL-UP MECHANISM AND HOOD ASSEMBLY ARE NOT PART OF THIS APPROVAL.
  13. THIS DOCUMENT CONTAINS INFORMATION RELEVANT TO THE NECESSARY STRUCTURAL REQUIREMENTS OF THE SYSTEM INSTALLATION. COMPONENTS AND FASTENERS NOT REFERENCED WHICH ARE PART OF THE INTERNAL FABRICATION OF THE SPECIFIED SYSTEMS OR ASSEMBLIES SHALL BE PER MANUFACTURER PUBLISHED SPECIFICATIONS.
  14. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS OUTLINED HEREIN.
  15. EACH DOOR ASSEMBLY SHALL BEAR A PERMANENT LABEL ON FACING THE EXTERIOR WITH THE FOLLOWING MINIMUM INFORMATION:  
 BEST ROLLING DOORS, INC.  
 HIALEAH GARDENS, FL  
 MISSILE LEVEL D - TAS 201, 202, & 203  
 FLORIDA PRODUCT APPROVAL NUMBER
  16. CONTRACTOR SHALL BE RESPONSIBLE TO INSULATE DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
  17. WATERPROOFING IS NOT PART OF THIS CERTIFICATION AND SHALL BE CERTIFIED BY OTHERS.



SEE TABLE 1 FOR MAX CLEAR OPENING WIDTH

**STEEL ROLL-UP DOOR (ALL MODELS)**  
 1 SCALE: NTS ELEVATION

**STEEL ROLL-UP DOOR (ALL MODELS)**  
 2 SCALE: NTS SIDE SECTION

TABLE 1: MAXIMUM ALLOWABLE PRESSURE AND CLEAR OPENING WIDTH

MODEL #	MAXIMUM CLEAR OPENING WIDTH	MAXIMUM ALLOWABLE PRESSURE
(a) S10-6065	24'-1 1/2"	+60psf / -65psf
(b) S10-6565	30'-4 1/2"	+65psf / -65psf
(c) S10-100	30'-4 1/2"	+100psf / -100psf

**ENGINEERING EXPRESS**  
 CORPORATE OFFICE:  
 160 SW 12th AVE, SUITE 106  
 DEERFIELD BEACH, FL 33442  
 WWW.ENGINEERINGEXPRESS.COM  
 TEAM@ENGINEERINGEXPRESS.COM  
 ENGINEERINGEXPRESS.COM

**BEST ROLLING DOORS, INC.**  
 9770 N.W. 79TH AVENUE  
 HIALEAH GARDENS, FL  
 Phn. (305) 698-3550  
 STEEL ROLL-UP DOORS  
 FLORIDA BUILDING CODE SEVENTH EDITION (2020)

REMARKS	DATE
INT ISSUE	08/19/17
REV	FLB
JEM	01/29/21
REC 2020 UPDATE	

21-36346  
 SCALE: NTS UNLESS NOTED

VISIT [E.CALC.IO/36346](http://E.CALC.IO/36346) SCAN HERE

FOR HELPFUL RESOURCES, SITE SPECIFIC JOB ORDERING & MORE INFORMATION ABOUT THIS PRODUCT & RELATED SERVICES

01

C:\Users\jennapp\appdata\local\temp\AutoCAD\_1345201-36346a-Dwg-FI\_10706.1.dwg 01/26/2021 - 1:09pm jenn

## VE-20 Alternate HVAC Equipment Detail

Provided by:



### **Electric Unit Heaters**

Original: Reznor EGW5

VE: QMark MUH0581

### **Air Distribution Devices**

Original : Titus TMS-AA  
Titus PAR-AA  
Titus 300FL  
Titus 350FL  
Titus T-700L

VE : Hart & Cooley 50510  
Hart & Cooley 50344  
Hart & Cooley 22447  
Hart & Cooley 11714  
Hart & Cooley RH45

### **Exhaust Fans**

Original: Greenheck G-070-D  
Greenheck SE1-18-429-VG  
Greenheck G-060-D  
Greenheck SQ-080-D  
Greenheck SP-A110  
Greenheck G-097-B

VE: Dayton 16D529  
Dayton 484X47  
Dayton 4YC64  
Broan L300EL  
Broan L200E  
Dayton 4YC64

Thank You  
**For Reviewing**  
This Rev. 01 VE Study

**IFB No:** 2016R

**Location:** 4630 Melanie Street, Hastings, FL 32145

**Sincerely:** Vargco



ST. JOHNS COUNTY, FL  
 BID TABULATION

IFB NUMBER: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office  
 AND TITLE \_\_\_\_\_

OPENING DATE: 12/20/2024  
 OPENED BY: Diana M. Fye  
 VERIFIED BY: Bryan Matus  
 POSTING DATE: 12/23/2024

BIDDERS	BID OPTION A BASE BID LUMP SUM PRICE (Project Completion within a 10 Month Timeframe)	ALLOWANCE 1 Bi-Dirctional Antenna (BDA) Equipment	ALTERNATE 1 Addition of Storage Building	ALTERNATE 2 Reduced Spec for Appratus Bay Doors	ALTERNATE 3 Addition of Water Tower	ALTERNATE 4 Addition of Apparatus Bay Fan	ALTERNATE 5 Remove Canopies	ALTERNATE 6 Delete Coffee Station & Kitchen Island Millwork	ALTERNATE 7 Remove Building Automation	ALTERNATE 8 VE Floor Plan Reduction	BID OPTION A TOTAL LUMP SUM BID (Option A Base Bid + Allowance and all Alternates)
Vargco, LLC	\$4,499,901.00	\$40,000.00	\$222,174.00	(\$166,210.00)	\$151,786.00	\$11,972.00	(\$21,532.00)	(\$6,237.00)	(\$40,722.00)	(\$72,605.00)	\$4,618,527.00
K & G Construction Co., Inc.	\$4,693,494.00	\$40,000.00	\$142,650.00	(\$205,000.00)	\$65,000.00	\$16,000.00	(\$20,000.00)	(\$21,081.00)	(\$10,800.00)	(\$17,000.00)	\$4,683,263.00
C.C. Borden Construction, Inc.	\$4,999,346.00	\$40,000.00	\$355,394.00	(\$273,653.00)	\$94,542.00	\$15,920.00	(\$17,800.00)	(\$19,629.00)	(\$55,837.00)	(\$3,000.00)	\$5,135,283.00
Saboungi Construction, Inc.	\$5,177,960.00	\$40,000.00	\$231,390.00	(\$257,200.00)	\$22,680.00	\$19,110.00	(\$15,880.00)	(\$17,850.00)	(\$22,680.00)	(\$75,000.00)	\$5,102,530.00
Atlantic Coast Sales & Services, Inc. dba Atlantic Coast Construction Group	\$4,803,826.20	\$40,000.00	\$225,000.00	(\$225,980.00)	\$120,075.00	\$18,720.00	(\$20,000.00)	(\$15,000.00)	(\$13,760.00)	(\$163,990.00)	\$4,768,891.20
Gray Construction Services, Inc.	\$4,751,258.00	\$40,000.00	\$272,898.00	(\$222,063.00)	\$84,810.00	\$16,149.00	(\$14,669.00)	(\$22,655.00)	(\$36,200.00)	(\$55,346.00)	\$4,814,182.00

Any actual Bidder who is aggrieved in connection with the Notice of Intent to Award, where such grievance is asserted to be the result of a violation of the requirements of the County's Purchasing Policy and associated procedures, or any applicable provision of law by the officers, agents, or employees of the County, may file a Protest with the Purchasing Director. The Protest must be submitted in writing, accompanied by a security in the form of a Protest Bond, by 4:00PM on the fifth business day following the date of the posting of the Notice of Intent to Award.

All public records shall become available for inspection and copying pursuant to Chapter 119, Florida Statutes.



ST. JOHNS COUNTY, FL  
 BID TABULATION

IFB NUMBER: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office  
 AND TITLE \_\_\_\_\_

BIDDERS	BID OPTION B BASE BID LUMP SUM PRICE (Project Completion within 12 Month Timeframe)	ALLOWANCE 1 Bi-Dirctional Antenna (BDA) Equipment	ALTERNATE 1 Addition of Storage Building	ALTERNATE 2 Reduced Spec for Appratus Bay Doors	ALTERNATE 3 Addition of Water Tower	ALTERNATE 4 Addition of Apparatus Bay Fan	ALTERNATE 5 Remove Canopies	ALTERNATE 6 Delete Coffee Station & Kitchen Island Millwork	ALTERNATE 7 Remove Building Automation	ALTERNATE 8 VE Floor Plan Reduction	BID OPTION B TOTAL LUMP SUM BID (Option A Base Bid + Allowance and all Alternates)
Vargco, LLC	\$4,499,901.00	\$40,000.00	\$222,174.00	-\$166,210.00	\$151,786.00	\$11,972.00	-\$21,532.00	-\$6,237.00	-\$40,722.00	-\$72,605.00	\$4,618,527.00
K & G Construction Co., Inc.	\$4,493,494.00	\$40,000.00	\$142,650.00	-\$205,000.00	\$65,000.00	\$16,000.00	-\$20,000.00	-\$21,081.00	-\$10,800.00	-\$17,000.00	\$4,483,263.00
C.C. Borden Construction, Inc.	\$5,034,797.00	\$40,000.00	\$355,394.00	-\$273,653.00	\$94,542.00	\$15,920.00	-\$17,800.00	-\$19,629.00	-\$55,837.00	-\$3,000.00	\$5,170,734.00
Saboungl Construction, Inc.	\$5,182,310.00	\$40,000.00	\$218,010.00	-\$254,800.00	\$22,470.00	\$18,900.00	-\$15,730.00	-\$17,700.00	-\$22,470.00	-\$74,310.00	\$5,096,680.00
Atlantic Coast Sales & Services, Inc. dba Atlantic Coast Construction Group	\$4,840,826.20	\$40,000.00	\$225,000.00	-\$225,980.00	\$120,075.00	\$18,720.00	-\$20,000.00	-\$15,000.00	-\$13,760.00	-\$163,990.00	\$4,805,891.20
Gray Construction Services, Inc.	\$4,800,759.00	\$40,000.00	\$272,898.00	-\$222,063.00	\$84,810.00	\$16,149.00	-\$14,669.00	-\$22,655.00	-\$36,200.00	-\$55,346.00	\$4,863,683.00

Any actual Bidder who is aggrieved in connection with the Notice of Intent to Award, where such grievance is asserted to be the result of a violation of the requirements of the County's Purchasing Policy and associated procedures, or any applicable provision of law by the officers, agents, or employees of the County, may file a Protest with the Purchasing Director. The Protest must be submitted in writing, accompanied by a security in the form of a Protest Bond, by 4:00PM on the fifth business day following the date of the posting of the Notice of Intent to Award.

All public records shall become available for inspection and copying pursuant to Chapter 119, Florida Statutes.





**Board of County Commissioners  
St. Johns County, Florida**

**INVITATION FOR BIDS NO: 2016R**

**CONSTRUCTION OF FLAGER ESTATES FIRE STATION #21 &  
SJSO FIELD OFFICE**

**St. Johns County Purchasing Department  
500 San Sebastian View  
St. Augustine FL 32084  
(904) 209-0150  
[www.sjcf.us/Purchasing/index.aspx](http://www.sjcf.us/Purchasing/index.aspx)**

**FINAL: 11/20/2024**

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**EXHIBIT B – TECHNICAL SPECIFICATIONS**

**EXHIBIT C – SJC OPERATIONS DIVISION PAVING & DRAINAGE CONSTRUCTION PERMIT COMM 2024-869**

**EXHIBIT D – ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD) PERMIT 223875-1**

**EXHIBIT E – 01 23 00-SJC-ALTERNATIVES REV**

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**PART I – GENERAL TERMS AND CONDITIONS**

**1) DEFINITIONS**

Terms used within this Invitation for Bids (“IFB”) shall have the meaning as set forth in the St. Johns County Purchasing Policy (“Policy”), or as otherwise defined herein. Any definition provided herein, shall govern over the definitions provided in the Policy.

**2) COMPLIANCE WITH ST. JOHNS COUNTY PURCHASING POLICY**

All applicable provisions of the Policy and associated procedures are incorporated into the IFB Documents by reference and are fully binding. Bidders are required to submit their Bids, and to conduct their activities in accordance with the Policy and associated procedures.

**3) PURPOSE**

The purpose of this IFB is for a Contractor to complete all work to construct a new Fire Station in the Flagler Estates community. The site location for the new fire station is located at 4630 Melanie Street, Hastings, Florida 32145. The fire station facility will include an apparatus bay, living quarters, and all necessary apparatus support spaces. This facility will also include a space for the St. Johns County Sheriff’s Office.

**4) BIDDER’S REPRESENTATION**

By submitting a Bid, each Bidder represents and warrants that Bidder has read and understands all information and requirements provided herein, and that Bidder is familiar with and understands all conditions related to the work specified herein, and the submitted Bid is based upon all necessary considerations to perform the work in accordance with all specifications and requirements provided herein, or as otherwise provided in an Addendum. Bidder also represents that any and all costs associated with performing the specified work are included in the submitted Bid.

**5) IFB DOCUMENTS**

The IFB Documents are those documents which shall govern the solicitation, submittal, consideration and award of submitted Bid(s), which generally includes, but is not limited to: IFB Documents, Specifications, Plans, Drawings, and all issued Addenda.

IFB Documents may be obtained from [www.demandstar.com](http://www.demandstar.com) or SJC Purchasing Department. The IFB Documents shall be used by Bidders to prepare their Bid for submittal. St. Johns County (“County”) shall not assume any responsibility for errors or misrepresentations resulting from the use of complete or incomplete sets of IFB Documents. The County, in making the IFB Documents available, do so only for the purpose of obtaining Bids for the specified purpose and do not confer a license or grant for any other use.

**6) INTERPRETATION OR CORRECTION OF IFB DOCUMENTS**

Bidders shall promptly notify the Designated Point of Contact of any ambiguity, inconsistency, or error which they may discover upon examination of the IFB Documents or of the site and local conditions. Bidders requiring clarification or interpretation of the IFB Documents shall make a written request to the Designated Point of Contact by or before the deadline for questions as provided herein.

An interpretation, correction or change of the IFB Documents will be made by Addendum. Interpretations, corrections, or changes of the IFB Documents made in any other manner will not be binding, and Bidders must not rely upon such interpretations, corrections, or changes. No change will be made to the IFB Documents by the County less than seven (7) days prior to the submittal deadline for Bids. The County, however, reserves the right to issue addendums at any time prior to the submittal deadline for Bids in order to serve the best interest of the County.

## 7) SUBSTITUTIONS

The materials, products and equipment described in the IFB Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitution will be considered unless written request for approval has been received by the Designated Point of Contact at least fourteen (14) calendar days prior to the submittal deadline for Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute, including drawings, cuts, performance and testing data, and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require must also be included. The burden of proof of the merit of the proposed substitute is upon the proposer of the substitute. The Project Manager's approval or disapproval of a proposed substitution shall be final.

If County Staff approves any proposed substitution, such approval will be set forth in an Addendum. Bidders must not rely upon approval made in any other manner.

## 8) DESIGNATED POINT OF CONTACT

The County's Designated Point of Contact for this IFB is Diana M. Fye, BAS, NIGP-CPP, CPPB, Senior Procurement Coordinator, St. Johns County Purchasing Department. Any and all questions and/or inquiries shall be directed to Ms. Fye, *in writing*, via email at [dfye@sjcfl.us](mailto:dfye@sjcfl.us). In the event the Designated Point of Contact is absent or otherwise unavailable for more than three (3) business days, firms may contact Bryan Matus, Senior Procurement Coordinator at [bmatus@sjcfl.us](mailto:bmatus@sjcfl.us).

## 9) LOBBYING PROHIBITION

In accordance with Section 9 of the Policy, Bidders **SHALL NOT** contact any staff member of the County, including members of the Board of County Commissioners, except the above referenced Designated Point of Contact with regard to this Invitation for Bids. Any such communication is a violation of the Policy and shall result in disqualification and removal from consideration for award under this IFB.

## 10) PRE-BID MEETING

There will be a **Non-Mandatory** Pre-Bid Meeting on **Wednesday, November 27, 2024, at 10:00 AM EST** in the Public Works Main Conference Room at the St. Johns County Public Works Department, 2750 Industry Center Road, St. Augustine FL 32084. Attendance is strongly recommended but is not required at the Pre-Bid Meeting in order to be eligible to submit a bid for this project. Bidders and sub-contractors are highly encouraged to visit the site prior to the Pre-Bid Meeting to familiarize themselves with the site and any conditions that may pose a conflict during the course of construction.

## 11) QUESTIONS

Any and all questions related to this project shall be directed, *in writing*, to the Designated Point of Contact. Questions are due no later than Four o'clock (**4:00PM**) **EST on Thursday, December 5, 2024**, so that any necessary addenda may be issued in a timely manner. Any questions received after the deadline will not be answered unless previously approved by the SJC Purchasing Director or other designated County Representative.

## 12) ADDENDA

Any change, clarification, revision, deletion, additional documents or information provided by the County after broadcast of this IFB will be provided via Addendum, and posted to Demandstar ([www.demandstar.com](http://www.demandstar.com)) with the IFB Documents. All planholders for this IFB will be notified of the posted addendum by Demandstar. Planholders may access and download issued Addenda for inclusion in their submitted Bid. Bidders may also request issued addenda from the Designated Point of Contact, in writing. It is the responsibility of the Bidder to acquire any addenda issued by the County. The County is not responsible for a Bidder's failure to obtain any issued Addendum.

Bidders are responsible for incorporating any and all changes, clarifications, revisions, deletions, additional documents and information provided by Addendum into the submitted Bid. Failure by the Bidder to appropriately consider and incorporate the addenda into their submitted Bid may cause the submitted Bid to be considered non-responsive and removed from further consideration. It shall be the sole discretion of the Purchasing Manager or Purchasing Director to determine whether or not an Addendum is material to the submitted Bid, resulting in

disqualification and removal from consideration for award.

Each Bidder shall acknowledge all issued Addenda in the submitted Bid in the space provided on the Official County Bid Form, and completing and submitting **Attachment "N"** – Acknowledgement of Addenda with the sealed Bid.

### **13) BID SUBMITTAL REQUIREMENTS**

The Submittal Deadline for Bids shall be no later than two o'clock **(2:00PM EST) on Friday, December 20, 2024**. Bids must be submitted to: SJC Purchasing Department, 500 San Sebastian View, St. Augustine, FL 32084.

All mail delivered to the County is processed through SJC Central Receiving. Bidders must factor the additional time for processing when mailing their submitted Bids to the County. Any Bids that are not delivered to the SJC Purchasing Department, by the deadline above, shall not be considered, even if the Bid is delivered to SJC Central Receiving prior to the deadline above. SJC Purchasing is not responsible for Bids that are delayed in delivery due to mail processing activities of the County's Central Receiving Office.

Bidder shall assume full responsibility for timely delivery of their submitted Bid at the location designated above for receipt of Bids. Bids shall be delivered to the designated location prior to the submittal deadline provided above, or as revised by addendum. Bids received after the established submittal deadline will not be considered and will be returned to the sender unopened.

Additionally, the County is not responsible for Bids that are incorrectly labeled, addressed, mailed, or otherwise delivered to an incorrect location other than the SJC Purchasing Department. Any such Bid that is not received in the SJC Purchasing Department shall be returned to the Bidder, unopened.

Each Bidder must submit one (1) original hard copy, on the required forms provided herein, in a sealed envelope or container plainly marked with the Bidder's full legal company name, mailing address, and recite: **"IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE"**. A mailing label has been provided herein for Bidders to use to identify their Bid.

All required forms and attachments, including the Official County Bid Form, must be completed, and all required information provided. Information must be typewritten or manually written in blue or black ink. Each Bid must include the Bidder's full legal company name, mailing address, telephone number, and must identify whether the Bidder is a sole proprietor, partnership, corporation or other legal entity. **The submitted Bid should NOT include a full copy of the IFB General Terms and Conditions.**

Bidders must only submit one (1) Bid in response to this IFB. Oral, telephonic, telegraphic, or electronic Bids are invalid and will not receive consideration.

Where so indicated by the makeup of the Bid Form, sums shall be expressed in both words and numerals, and in the case of a discrepancy between the two, the amount expressed in words shall govern. Additionally, where there are unit prices and extended prices, the unit prices shall govern over extended pricing.

Any interlineations, alterations, or erasures by the Bidder on the Bid Form must be initialed by the signer of the Bid. Failure to do so may cause the Bid to be considered non-responsive.

Bidder shall make no stipulation on the Bid Form, nor qualify the submitted Bid in any manner. To do so will classify the Bid as being non-responsive.

Any submitted Bid must be signed by a principal of the Bidder, or other legally authorized to bind the Bidder to a contract. In the event the Bid is signed by a representative who is not a principal of the Bidder, a Delegation of Authority Letter must be submitted with the Bid, stating the delegation of authority by principal(s), owner(s), or officer(s) of the Bidder for the signing representative. The delegation of authority must be signed by the principal/owner/officer of the Bidder and must state the limits and duration of the delegation to the signing

representative.

A Bid submitted by an agent must have a current Power of Attorney attached, certifying the agent's authority to bind the Bidder.

All Bids submitted in response to this IFB shall become the property of the County and will not be returned to the Bidders. In the event of an award, all documentation produced as part of the award shall become exclusive property of the County.

#### 14) BID SECURITY

Each submitted Bid must be accompanied by a Bid Security, submitted on the Bid Bond Form provided herein, or in the form of a certified or cashier's check, in the amount of **five percent (5%) of the Total Lump Sum Bid Price – of the Bid Option which is higher**, as submitted on the Official County Bid Form, pledging that the Bidder will enter into a contract with the County on the terms stated in the IFB and will, if required, furnish bonds as described hereunder covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds to the County, if required, the amount of the Bid Security shall be forfeited, not as penalty, but as liquidated damages.

A Bid Security in the form of a certified or cashier's check must be made payable to the Board of County Commissioners of St. Johns County. Bidders submitting a certified or cashier's check as the bid security are not required to submit **Attachment "B"** – Certificate as to Corporate Principal, or the Bid Bond forms provided herein.

A Bid Security in the form of a Bid Bond shall be written on the form provided herein, with an acceptable surety, and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of his Power of Attorney. Acceptable surety companies are defined herein under "Surety Bond". The Surety Company shall be licensed to do business in the State of Florida and shall be listed by the U.S. Treasury Department. Any Bidder submitting a Bid Security in the form of a Bid Bond must also submit **Attachment "B"** – Certificate as to Corporate Principal.

The County shall have the right to retain the Bid Security until either (a) a Contract is executed and bonds, if required, have been furnished, or (b) the County has rejected all Bids, or (c) the period of time for which Bids are irrevocable has elapsed, so that Bids may be withdrawn.

#### 15) BID BOND INSTRUCTIONS

A Bid Bond submitted, on the form provided herein, must be completed as follows:

- Type or Print Bidder's and Surety's names, mailing addresses, in the same language as in the IFB Documents;
- Have authorized representatives of the Bidder and Surety/Surety's Agent sign in the designated spaces;
- Attach a copy of Surety agent's Power of Attorney with an original signature of the Secretary or Assistant Secretary of Surety certifying the copy, unless the Power of Attorney has been recorded in St. Johns County. If it has been recorded, provide book and page number.
- Submit one (1) original, as prescribed herein for Submittal of Bids.

#### 16) SURETY REQUIREMENTS

Any Surety issuing a Bond to the County, must meet the following requirements:

- Surety must be licensed to do business in the State of Florida;
- Surety must have a record of successful continuous operations for at least three (3) years;
- Surety shall not have exposed itself to any loss on any one risk in an amount exceeding twenty percent (20%) of its surplus to policyholders;
- Surety must have fulfilled all of its obligations on all other bonds given to the County;
- Surety must have good underwriting, economic management, adequate reserves for undisclosed liabilities, and net resources for unusual stock and sound investment.

**17) BID POSTPONEMENT/CANCELLATION**

The County may, at its sole and absolute discretion, postpone or cancel this IFB, and/or resolicit Bids in order to serve the best interest of the County.

**18) MODIFICATION OR WITHDRAWAL OF BID**

A submitted Bid may not be modified, withdrawn or canceled by the Bidder after the submittal deadline specified herein.

Prior to the submittal deadline for Bids, a Bid submitted early may be modified or withdrawn only by written notice to the Designated Point of Contact. Upon notice from a Bidder to modify or withdraw a submitted Bid, provided such notice is received prior to the submittal deadline for Bids, the County shall return the Bid to the Bidder unopened. Any modified Bids must be submitted prior to the submittal deadline specified herein, in order to be considered.

**19) COSTS INCURRED BY BIDDERS**

Bidders are responsible for any and all costs associated with developing and submitting a Bid in response to this IFB. Additionally, Bidders are solely responsible for any and all costs associated with providing any subsequent information requested by the County, attending any meetings with the County, and any other activities related to this solicitation and subsequent award proceedings. It is expressly understood, no Bidder may seek or claim any award and/or reimbursement from the County for any expenses, costs, and/or fees (including attorney's fees) borne by any Bidder, during the IFB process. Such expenses, costs, and/or fees (including attorney's fees) are the sole responsibility of the Bidder.

**20) CONSIDERATION OF BIDS**

**Opening of Bids:** Unless stated otherwise in an Addendum, Bids received by or before the submittal deadline will be opened publicly, immediately after the submittal deadline provided herein. The Bid Tabulation shall be posted to DemandStar, upon verification of Bids and all information.

**Rejection of Bids:** The County reserves the right to reject any or all Bids that are not materially responsive to the requirements provided herein, or if it is determined to be in the best interest of the County. The County may also waive any minor formality or irregularity of any submitted Bid, provided the minor formality or irregularity does not materially impact the submitted Bid.

**Bid Award:** It is the intent of the County to award to the lowest, responsive, responsible Bidder, based upon the Base Bid and, if applicable, County accepted Alternates for the Bid Option as selected by the County. The County reserves the right to select the Bid Option which serves the best interest of the County, whether or not the Bid Option is the lowest overall price submitted.

The County shall have the right to accept alternates in any order or combination and to determine the low Bidder on the basis of the sum of the Base Bid and/or the Alternates accepted if alternate bids are requested in the Official County Bid Form. The County is under no obligation to award any Bid Alternates, unless it serves the best interest of the County to do so.

If an award is made, it will be made within ninety (90) days from the date of the Bid opening, unless stated otherwise in an Addendum. Submitted Bids must remain valid for a minimum of ninety (90) days from the date of the Bid opening and shall be irrevocable during this time unless otherwise agreed to by the County.

If only one (1) Bid is received, the County reserves the right to negotiate with the responding Bidder, if the submitted Bid is responsive to the requirements provided herein. The Bid may also be rejected and the IFB re-advertised, in order to best serve the needs of the County.

## 21) PAYMENTWORKS REGISTRATION

The County has implemented a registration process for awarded Suppliers, which includes Contractors and Consultants *even* if the Supplier, Contractor, or Consultant is currently or has previously done business with the County. This process is through PaymentWorks, a third-party payee management system. Upon award, Supplier will receive an invitation to register from the County Purchasing Department, via email, which will originate from the PaymentWorks system. If a Supplier has already registered within PaymentWorks, the registration does not have to be done again. However, in order to link the Supplier's current account with the County in PaymentWorks, the Supplier must provide the email to the person that is used on the Supplier's current account in PaymentWorks. The Supplier is responsible for completing the registration process for acceptance by the County, in order to receive any payments. The County **cannot** edit, input and/or bypass any portion of the registration for the Supplier. If there are any questions about this process, Suppliers can reach out to Joanie Chiarelli at [jchiarelli@sjcfl.us](mailto:jchiarelli@sjcfl.us) or Kayla Miller at [kmiller@sjcfl.us](mailto:kmiller@sjcfl.us).

## 22) PROTESTS

Any actual Bidder who is aggrieved in connection with the Notice of Intent to award a Contract (Protestor), where such grievance is asserted to be the result of a violation of the requirements of the County's Purchasing Policy and associated procedures, or any applicable provision of law by the officers, agents, or employees of the County, may file a Protest with the Purchasing Director. The Protest must be submitted in writing, accompanied by a security in the form of a Protest Bond, by 4:00PM on the fifth business day following the date of the posting of the Notice of Intent to Award.

## 23) MINIMUM QUALIFICATIONS

The following are minimum qualification requirements that Bidders must meet in order to be considered responsible to perform the work specified in this IFB. Bidders must submit sufficient documentation in their Bid Submittal, to clearly demonstrate that the Bidder meets or exceeds the following minimum qualification requirements:

- a. Must have an active registration with the State of Florida, Department of State, Division of Corporations ([www.sunbiz.org](http://www.sunbiz.org)); and
- b. Must possess a current Local Business Tax Receipt for St. Johns County, or must agree to obtain a Local Business Tax Receipt upon County issuance of Notice of Intent to Award;
- c. Must be currently licensed as a **State of Florida Certified General Contractor (CGC)** as of the submittal deadline for Bids. Proof of qualifications must be provided by completing and submitting **Attachment "C" – License/Certification List** along with a copy of each license and certificate listed. All licenses, certifications and pre-qualifications must be valid and current on the date bids are submitted.
- d. **Must submit a list of any and all relevant experience within the last five (5) years with the proposed scope of work** (submit with **Attachment "C" – License/Certification List**). The list must include the Client's information, total contract value, and completion timeframes. The County reserves the right to check any and all references. Failure to submit documentation to demonstrate experience as stated above shall cause a Bid to be disqualified.

Failure by a Bidder to demonstrate meeting or exceeding the minimum qualification requirements stated above shall be grounds for disqualification and removal from further consideration for award. The County reserves the right to request additional information regarding the qualifications and experience of the Bidder in order to determine the responsibility of the Bidder to perform the specified work.

Bidders to whom award of a contract is under consideration shall submit to the County, upon request, a properly executed Contractor's Qualification Statement of A1A Document A305, unless such a statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.



## 24) SUB-CONTRACTORS

Each Bidder shall submit to the County a list of Subcontractors and major materials suppliers to be used if awarded the contract. A copy of the form, **Attachment "D"**, is provided in the IFB Document. If no Subcontractors or major material suppliers are required, so state there on.

Upon request by the County, the successful Bidder shall within seven (7) days thereafter, submit all data required to establish to the satisfaction of the County, the reliability and responsibility of the proposed Subcontractors to furnish and perform the work described in the Sections of the Specifications pertaining to such proposed Subcontractor's respective trades.

Prior to the award of the Contract, the County will notify the Bidder in writing if the County, after due investigation, has reasonable and substantial objection to any person or organization proposed as a Subcontractor. The Bidder then may, at his option, withdraw his Bid without forfeiture of Bid Security or submit an acceptable substitute at no increase in Bid price. If the Bidder fails to submit an acceptable substitute within seven (7) days of the original notification, the County may then, at its option, disqualify the Bidder, at no cost to the County.

The County reserves the right to disqualify any Contractor, Subcontractor, Vendor, or material supplier due to previously documented project problems, either with performance or quality.

Subcontractors and other persons and organizations proposed by the Bidder and accepted by the County, must be used on the work for which they were proposed and accepted and shall not be changed except with the written approval of the County.

## 25) BID OPTIONS/REVISIONS TO SCOPE

This IFB provides for two options for Bidders to submit their Bids. The Bids submitted for each Bid Option must include any and all consideration for the timeframe relevant to the Bid Option, as provided below. Any and all VE Options submitted by a Bidder must provide consideration regarding any impacts to the cost reduction proposed with the VE option(s) if the cost reduction is impacted by the respective Bid Option timeframe.

Bid Option A requires the Contractor to complete the Work within a ten (10) month timeframe. Bidders must submit pricing for the Base Bid and all provided Alternates with consideration of this timeframe.

Bid Option B requires the Contractor to complete the Work within a twelve (12) month timeframe.

The Base Bid of both Bid Options includes the following revisions to the Scope of Work. Each Bidder shall provide a Schedule of Value for this list of items and the associated cost for each, for the County to utilize in the event the County elects to reincorporate any of the following items.

- I. CMU walls of dumpster enclosure, well enclosure and mechanical enclosure (aka CUP) are replaced with fence and privacy slats similar to detail on C-603.
- II. Security Fence as shown on C-303, and all associated motorized cantilever gates, gate drivers, and high/low card reader pedestals are deleted. All conduits required for gates and access control operation shall remain in the scope and be installed for future use.
- III. Generator is deleted. Transfer switch and necessary infrastructure for future generator or mobile generator connections shall remain in scope and be installed. Provide wall-mounted camlock termination box on building exterior for mobile generator hookup. Locate adjacent transfer switch. Transfer switch must be capable of manual transfer and automatic transfer.
- IV. Site pole SP3 is removed. Provide two (2) building mounted wall pack lights at 15,000 lumens each.
- V. Bi-pass paving (north side of Fire Station Building, 15.17'x331.75') is deleted, including 527SY of 8-inch concrete pavement and 325SY of 6-inch concrete pavement.
- VI. All concrete curb and gutter is removed, including all Type F curb and gutter, Type D curb, and drop curb. Replace Type 9 Curb Inlets with Type C Ditch Bottom Inlets.
- VII. Pond is reduced by 15% (177CY). Fountain and all associated electrical is removed. All conduits required for

fountain shall remain in scope and be installed for future use.  
VIII. Mulched trails and all associated work is deleted, except for trail leading to basketball court.

## **26) BIDDER SUBMITTED VALUE ENGINEERING OPTIONS**

Each Bidder shall submit to the County a list of proposed Value Engineering (VE) options with associated cost estimates for savings with their Bid. The County may, at its sole discretion, incorporate the savings from any or all of these proposed VE options in the final award amount to the awarded Bidder. While these VE options, and the amounts associated therewith are not part of the consideration for award, the Bidder is obligated to accept the corresponding reduction(s) to their submitted Bid Price, based upon the VE options elected by the County. The County reserves the right to request, and the awarded Bidder is obligated to collaborate with the County and determine additional value engineering opportunities, either prior to execution of the awarded Contract, or after execution of the awarded Contract to accomplish the completion of the Project within the required Budget.

Bidders must submit any and all suggested Value Engineering options that Bidder is able to identify, including the proposed change to the relevant specification requirement(s), and an associated reduction of cost. Bidder may also submit supplemental documentation to support the suggested VE option.

## **26) PUBLIC CONSTRUCTION BOND**

The awarded Contractor shall be required to obtain and submit a recorded Public Construction Bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder in full amount of the awarded Contract, with such acceptable sureties, secured through the Bidder's usual sources as may be agreeable to the parties. The Contractor shall furnish the required bond, after full execution of the awarded Contract. The Bond shall be released upon satisfactory completion of the project.

The Public Construction Bond form will be provided to the awarded Contractor with the fully executed contract. The Contractor shall provide the recorded Public Construction Bond to the County within three (3) business days of receipt of the bond form and executed contract. **The Public Construction Bond must be recorded after the contract is signed by all parties.**

Contractor shall record the Public Construction Bond with the St. Johns County Clerk of Courts, and obtain a certified copy of the recorded bond and provide to the SJC Purchasing Department. No work shall commence until the required bond has been delivered to the Owner. Upon receipt of the certified copy of the recorded bond, the Owner may issue a Notice to Proceed.

Unless otherwise specified in the IFB Documents, the bonds shall be written on the form provided herein. The Bidder shall require the Attorney-in-Fact who executes the required bonds on behalf of the Surety to affix thereto a certified and current copy of his Power of Attorney authorizing his firm to act as agent for the Surety in issuing the bonds.

## **27) FORM OF AGREEMENT BETWEEN COUNTY AND CONTRACTOR**

Unless otherwise provided in the IFB Documents, the Agreement for Work will be written on the St. Johns County Master Construction Agreement.

## **28) EXECUTION OF CONTRACT DOCUMENTS**

The awarded Contractor shall return signed copies of the Contract Agreement to the SJC Purchasing Department within ten (10) consecutive calendar days of receipt of Notice of Award. St. Johns County shall return a fully executed original copy of the Contract Agreement to the Contractor no later than seven (7) consecutive calendar days after the return of the signed copies from the Contractor.

## **29) CONTRACT TIME – LIQUIDATED DAMAGES**

The Contractor shall have ten (10) days to return Contract originals from the time the Contractor receives a "Notice of Award". St. Johns County will return a "fully executed" Contract to the Contractor no later than seven (7) days after the return of the executed Contract originals (but no later than seventeen (17) days from the Notice of Award).

The Contractor will furnish a recorded original certified copy of the Public Construction Bond three (3) business days after receipt of the fully executed Contract (the Public Construction Bond must be recorded after the Contract is fully executed by all parties including the County Clerk). Upon receipt of the recorded Public Construction Bond, the County will issue a Notice to Proceed. If the Contractor fails to meet any of the dates and timeframes set forth in this section, or fails to execute the Contract, or to provide a Public Construction Bond, the County may elect at its option to consider the Contractor non-responsive and Contract with the next lowest, responsible Bidder.

The work to be performed under this Agreement shall be commenced within **ten (10)** days of the date of the Notice to Proceed, in writing. Construction of the project shall be substantially complete within the number of consecutive calendar days stipulated on the Notice to Proceed. Final completion shall be attained within the number of consecutive calendar days from the date of substantial completion.

**Conditions under which Liquidated Damages are Imposed:**

If Contractor fails to achieve Substantial Completion or Final Completion of the Work by its applicable date, then the County shall be entitled to withhold from any amounts otherwise due Contractor or to be paid as a debt due the sum of **Two Thousand One Hundred Fifty Dollars and Thirty-Eight Cents (\$2,150.38) per day** for each and every calendar day of unexcused delay as "Liquidated Damages". The parties agree that such Liquidated Damages are not a penalty but rather a genuine pre-estimate of monetary damages sustained by the County for loss of revenue and/or increased project administration expenses related to this Contract because the Contractor failed to perform and complete Work within the time fixed for completion or additional time granted pursuant to the provisions hereof. The assessment of Liquidated Damages is without prejudice to the County's rights of termination and Contractor's obligation to complete the Work.

Should Contractor fall behind the approved Work schedule; the County reserves the right to deduct Liquidated Damages based on an estimated period of late completion. The County need not wait until the completion of Work to withhold Liquidated Damages from the Contractor's progress payments.

**30) INDEMNIFICATION**

Contractor shall indemnify and hold harmless the County and its officers and employees ("Indemnified Party"), from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in the performance of this Contract.

To the extent permitted by, and in accordance with Section 725.06 of the Florida Statutes, Contractor further agrees that "damages, losses and costs", includes fines, citations, court judgments, insurance claims, restoration costs or other liability, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of Contractor and persons employed or utilized by Contractor in performance of the Work.

To the extent permitted by, and in accordance with Section 725.06 of the Florida Statutes, for purposes of indemnity, the "persons employed or utilized by Contractor" shall be construed to include, but not be limited to, Contractor, its staff, employees, subcontractors, all deliverers, suppliers, furnishers of materials or services or anyone acting for, on behalf of, or at the request of Contractor.

In Claims against any person or entity indemnified hereunder by an employee of Contractor, any Subcontractor, or subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section 11.2 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any Subcontractor or subcontractor under any workers' compensation acts, disability benefits acts or other employee benefit acts.

Contractor's indemnity and hold harmless obligations hereunder shall extend to all Claims against the County by any third party or third-party beneficiary and all liabilities, damages, losses and costs related thereto.

This indemnification will not be valid in the instance where the loss is caused by the gross negligence, or willful, wanton or intentional misconduct of any Indemnified Party.

If any provision(s), or portion(s) of a provision(s) of this Section, or the application thereof to any person or circumstance shall, to any extent, be held to be invalid, illegal or unenforceable for any reason whatsoever, the validity, legality and enforceability of the remaining provision(s), or part of the provision(s), shall not in any way be affected or impaired thereby; and shall be interpreted to the fullest extent possible to be enforceable and to give effect to the intent manifested by the provision(s), or portion(s) thereof, held invalid, illegal or unenforceable.

Contractor shall further indemnify and hold harmless the County its officers and employees from and against all Claims arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents and shall defend such Claims in connection with any alleged infringement of such rights.

The indemnification provisions of this Section shall survive expiration or earlier termination of the Contract.

### 31) FORCE MAJEURE; DELAYS

**Force Majeure:** Contractor shall not be liable for failure to carry out the terms of this Agreement to the extent such failure is due to a Force Majeure event, except for failures that could have been reasonably foreseen and guarded against so as to avoid or reduce the adverse impact thereof. A Force Majeure event is hereby defined as the failure to carry out any of the terms of this agreement due to any one of the following circumstances beyond the control of the Contractor: (a) the operation and effect of the rules, regulations, or order promulgated by any commission, county, municipality, or governmental agency of the State of Florida or United States, (b) a restraining order, injunction, or similar decree on any court of competent jurisdiction, (c) war, (d) flood, (e) earthquake, (f) fire, (g) severe wind storm, (h) acts of public disturbance, (i) quarantine restrictions, (j) epidemics, (k) strikes, (l) freight embargoes, or (m) sabotage. The times specified herein for performances include delays that can ordinarily be anticipated due to adverse weather conditions. The County is not obligated to grant an extension of time due to the adverse weather condition unless such conditions rise to the level of Force Majeure.

**Delay:** Contractor shall not be compensated for delays caused by Contractor's inefficiency, rework made necessary by Contractor's work error, failure to perform the Work as scheduled, or any other corrective or productivity measures made necessary by errors, omissions, or failures to properly perform the Work. Neither shall the Contractor be compensated for delays caused by events by force majeure as described in sub-para (a) above. Within ten (10) days after the onset of a delay, Contractor shall notify the County in writing of the delay which shall provide: (1) a detailed description the delay and its probable duration, (2) the specified portion of the Work affected, and (3) an opinion as to the cause of the delay and liability (if any) for the delay. Notice provided more than ten (10) days after the inception of the delay shall only be effective as to additional time incurred during the ten (10) day period preceding receipt of such notice. In the case of continuing cause delay for the same cause, only one notice of delay is necessary. **Failure to provide this notice waives any claim for extension of time resulting from such delay.** If the delay is due to the failure of another County contractor to complete its work in a timely manner, changes ordered in the Work, a Force Majeure event, or any other cause which the County, in its sole judgment and discretion, determines to justify the delay, then the Completion Date may be extended as necessary to compensate for the delay. All time extensions shall be in the form of a written amendment signed by both parties.

### 32) CONTRACTOR SAFETY AND HEALTH REQUIREMENTS

The Contractor shall be responsible for supervising all safety precautions, including initiating and maintaining such programs in connection with the performance of the Contract and for adequate maintenance of traffic.

The Contractor shall designate a member of the on-site construction team whose duty shall be the prevention of accidents. Unless notified otherwise in writing by the Contractor to the County and the Engineer, this person shall be the Contractor's Superintendent.

**A. OSHA Requirements:**

The Contractor warrants that the product, products, or services supplied to St. Johns County shall conform in all respects to the standards set forth in the Occupational Safety and Health Act (OSHA) of 1970 as amended and the failure to comply will be considered a breach of contract. St. Johns County shall be held harmless against any unsafe conditions and contractor employee incidents.

**B. Compliance with Occupational Safety and Health Act:**

Contractor certifies that all material, equipment, services, etc., furnished in this IFB meets all OSHA requirements for the applicable Sectors. Bidder further certifies that, if he is the successful bidder, and the material, equipment, service, etc., delivered or provided is subsequently found to be deficient in any OSHA requirement in effect on date of delivery or service fulfillment date, all costs necessary to bring the material, equipment, service, etc., into compliance with the aforementioned requirements shall be borne by the bidder. All Personal Protective Equipment used by the contractor and their employees shall be ANSI certified and meet OSHA standards.

**C. Training and Education:**

Contractors will ensure that Contractor employees are trained appropriately for their work tasking. The minimum requirements are found in Federal and State Regulations. Examples of this training are (but not limited to):

- Lockout Tagout
- Fall Protection
- Electrical Safety and the National Electrical Code (NEC)
- Confined Space Entry
- Welding/Cutting/Brazing
- Specific Chemical Hazards
- Excavations and Trenching
- Heavy Equipment Operation

Special emphasis should be given towards training and compliance with the Construction industry's "Focus Four" established by OSHA as an outreach program to the construction industry and its workers. Training, education, and awareness should be provided in the areas of: 1) Fall Hazards, 2) Caught-In and Between Hazards, 3) Struck-By Hazards, and 4) Electrocutation Hazards.

**D. Toxic Substances/Federal Hazard Communication "Right To Know and Understand" Regulations:**

The Federal "Right to Know and Understand" Regulation (also known as the Hazard Communication / Globally Harmonized System of Classification and Labeling of Chemicals (GHS) implemented by OSHA requires employers to inform their employees of any toxic substances to which they may be exposed in the workplace, and to provide training in safe chemical storage, labeling, handling practices and emergency procedures.

Accordingly, the Contractor(s) performing under this contract shall be required to provide two (2) complete sets of Safety Data Sheets (SDS) to each of the departments utilizing the awarded products. This information should be provided at the time when the initial delivery is made, on a department-by-department basis. If performing work on site, it is preferred that each contractor bring their hazardous communication program and SDS in a binder labeled with the contractor's name and identified as a Hazardous Communication/GHS Program. Upon leaving the jobsite and the removal of all hazardous materials, contractors shall take their information with them. The transport, use, and disposal of toxic substances must be conducted in accordance with DEP/EPA regulations.

Upon request, contractors working at St. Johns County facilities or jobsites will be given access to the written Hazardous Communication Program and informed where to locate SDS.

**E. Temporary Traffic Control (TTC)/Maintenance of Traffic (MOT)**

The Contractor must comply with the Florida Department of Transportation's (DOT) Temporary Traffic Control (TTC) and the Manual on Uniform Traffic Control Devices (MUTCD) in the planning, development, design, implementation, operation, enforcement and inspection of work zone related transportation management and temporary traffic control on streets and highways within the State Highway System right-of-way. Training in the Advanced, Intermediate, and Flagger categories must be completed by the Contractor for their employees when performing right-of-way work while under contract with St. Johns County. Contractor employees must wear a Class II (daytime), Class III (night/limited visibility) high-visibility safety vest or equivalent high-visibility apparel while performing any work that places them in the right-of-way

**33) TERMINATION**

Failure on the part of the Contractor to comply with any portion of the duties and obligations under the Contract shall be cause for termination. If the Contractor fails to perform any aspect of the responsibilities described herein, St. Johns County shall provide written notification of any and all items on non-compliance. The Contractor shall then have five (5) consecutive calendar days to correct any and all items of non-compliance, or take acceptable corrective action, as determined by the County. If the items of non-compliance are not corrected, or acceptable corrective action has not been taken, as determined by the County, within the five (5) consecutive calendar days, the Contract may be terminated by St. Johns County for cause, upon giving seven (7) consecutive calendar days written notice to the Contractor. In the event the County issues more than one (1) Notice of Non-Compliance or Default during the term of the Contract, the County may terminate the Contract, for cause.

The County may terminate the Contract at any time, without cause, upon thirty (30) days written notice to the Contractor of intention to do so.

If, at any time, the Contract with the awarded Contractor is terminated by the County, whether for cause or for convenience, the County may, at its sole discretion, negotiate with the second lowest, responsible, responsive Bidder, in order to enter into a Contract with that Contractor to complete the required Work for the County, if it serves the best interest of the County to do so.

**34) METHOD OF PAYMENT**

The Contractor shall submit an Application for Payment, in a form provided by the County, to the SJC Public Works Construction Services Division, for Work satisfactorily performed, at the end of each month. The date of the Application for Payment shall not exceed thirty (30) calendar days from the date of Work performed. Under no circumstances shall any Application for Payment be submitted to the County in advance of the performance of Work. The County reserves the right to refuse or prorate payment based on unsatisfactory performance of Work during any month.

Failure to submit Application(s) for Payment in the prescribed manner may delay payment.

St. Johns County Payment Terms: In accordance with the Local Prompt Payment Act (F.S. 218.70-218.80)

**35) TAXES**

Project is subject to Federal Excise and Florida Sales Taxes, which must be included in Bidder's proposal.

**36) INSURANCE**

The Contractor shall not commence work under this Contract until he/she has obtained all insurance required under this section and such insurance has been approved by the County. All insurance policies shall be satisfactory to the County and shall be issued by companies authorized and duly licensed to transact business in the State of Florida. The Contractor shall furnish proof of Insurance to the County prior to the execution of this Contract. Certificates of insurance shall clearly indicate Contractor has obtained insurance of the type, amount, and classification as required by this Contract. Required insurance coverage shall be maintained in force, including coverage for Additional Insureds, until Final Completion of all Work including Warranty Work.

No less than ten (10) days written notice shall be provided to the County prior to cancellation, non-renewal or any material change of required insurance policies. Yearly renewal certificates shall be provided to the County within thirty (30) days of expiration of the current policy.

Certificates shall specifically include the County as Additional Insured for all lines of coverage except Workers' Compensation and Professional Liability. A copy of the endorsement must accompany the certificate. Compliance with the foregoing requirements shall not relieve the Contractor of its liability and obligations under this Contract.

Certificate Holder Address: St. Johns County, a political subdivision of the State of Florida  
500 San Sebastian View  
St. Augustine, FL 32084  
Attn: Purchasing Department

The Contractor shall procure and maintain during the life of the awarded Contract, Commercial General Liability Insurance with minimum limits of \$1,000,000 per occurrence, \$2,000,000 aggregate, including bodily injury (including wrongful death), property damage, products, personal & advertising injury, and completed operations. This insurance must provide coverage for all Claims that may arise from the services and/or operations completed under this Contract, whether such services or operations are by Contractor or anyone directly or indirectly employed by them. Such insurance(s) shall also be primary and non-contributory with regard to insurance carried by the Additional Insureds.

The Contractor shall procure and maintain during the life of the awarded Contract, Commercial Automobile Liability Insurance with minimum limits of \$2,000,000 combined single limit for bodily injury and property damage liability and insuring liability arising out of or in any way related directly or indirectly to the ownership, maintenance or use of any owned, non-owned or rented/hired automobiles.

The Contractor shall procure and maintain during the life of the awarded Contract, adequate Workers' Compensation Insurance in at least such amounts as are required by the law for all of its employees per Florida Statute 440.02.

The required insurance limits identified above may be satisfied by a combination of a primary policy and/or Umbrella or Excess Liability Insurance policy.

The Contractor shall maintain, throughout the duration of the awarded Contract, Builders Risk insurance, property insurance written on an "all risk" policy form including coverage for Earthquake, Flood, Windstorm, Debris Removal, Hot and Cold Testing in the amount of the initial contract sum, plus the value of subsequent contract modification and cost of material supplied or installed by others, comprising total value for the entire project at the site on replacement cost basis. The named insured should include Owner, General Contractor and Subcontractors. The policy should waive any co-insurance penalties. Covered Property to include Permanent Works: Materials, supplies, equipment, machinery and property of others, if the insured is contractually responsible and the value is included in the total project, Temporary Work: scaffolding, form work, fences, shoring, falsework, temporary buildings, Offsite Locations, Offsite Storage and Transit. Contractor shall require each lower-tier subcontractor to comply with all insurance requirements appropriate for its scope of work, and any deficiency shall not relieve Contractor of its responsibility herein. Upon written request, Contractor shall provide County with copies of lower-tier subcontractor certificates of insurance.

Providing and maintaining adequate insurance coverage is a material obligation of Contractor. County has no obligation or duty to advise Contractor of any non-compliance with the insurance requirements contained in this Section. If Contractor fails to obtain and maintain all of the insurance coverages required herein, Contractor shall indemnify and hold harmless the Additional Insureds from and against any and all Claims that would have been covered by such insurance had Contractor complied with its obligations herein.

County reserves the right to adjust the above minimum insurance requirements or require additional insurance coverages to address other insurable hazards.

### **37) GOVERNING LAWS & REGULATIONS**

The Contractor shall be responsible for being familiar and complying with any and all federal, state, and local laws, ordinances, rules and regulations that, in any manner, affect the work required under this contract. The agreement shall be governed by the laws of the State of Florida and St. Johns County both as to interpretation and performance.

### **38) EMPLOYMENT ELIGIBILITY AND MANDATORY USE OF E-VERIFY**

As a condition precedent to entering into this Agreement, and in accordance with section 448.095, F.S., Contractor and its subcontractors shall register with and use the E-Verify system to verify the work authorization status of all employees hired on or after July 1, 2023.

- a. Contractor shall require each of its subcontractors to provide Contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. Contractor shall maintain a copy of such affidavit for the duration of this Agreement.
- b. The County, Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated section 448.09(1), F.S. or these provisions regarding employment eligibility shall terminate the contract with the person or entity.
- c. The County, upon good faith belief that a subcontractor knowingly violated these provisions regarding employment eligibility, but Contractor otherwise complied, shall promptly notify Contractor and Contractor shall immediately terminate the contract with the subcontractor.
- d. Contractor acknowledges that, in the event that the County terminates this Contract for Contractor's breach of these provisions regarding employment eligibility, then Contractor may not be awarded a public contract for at least one (1) year after such termination. Contractor further acknowledges that Contractor is liable for any additional costs incurred by the County as a result of the County's termination of this Agreement for breach of these provisions regarding employment eligibility.

### **39) EQUAL EMPLOYMENT OPPORTUNITY**

In accordance with Federal, State and Local law, the submitting firm shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap. The submitting Bidder shall be required to comply with all aspects of the American's Disabilities Act (ADA) during the performance of the work.

### **40) PROHIBITION AGAINST CONSIDERATION OF SOCIAL, POLITICAL, OR IDEOLOGICAL INTERESTS**

Bidders are hereby notified of the provisions of Section 287.05701, Florida Statutes, as amended, that the County will not request documentation of or consider a Bidder's social, political, or ideological interests when determining if the Bidder is a responsible Bidder. Bidders are further notified that the County's governing body shall not give preference to a Bidder based on the Bidder's social, political, or ideological interests.

### **41) COMPLIANCE WITH FLORIDA STATUTE 287.138**

- A. Pursuant to 287.138 F.S., effective July 1, 2023, the County may not enter into contracts which grants the Contractor access to personal identifiable information if: 1) the Contractor is owned by the government of a Foreign Country of Concern (as defined by the statute: (b) the government of a Foreign Country of Concern has a controlling interest in the entity; or (c) the Contractor is organized under the law of or has its principal place of business in a Foreign Country of Concern. The County shall be entitled to immediately terminate this Agreement with liability to ensure the County's continued compliance with the statute.
- B. Pursuant to 287.138 F.S., effective January 1, 2024, if Contractor may access, receive, transmit, or maintain personal identifiable information under this Agreement, Contractor must submit a Foreign Entity Affidavit to the County. Additionally, effective July 1, 2025, Contractor shall submit a Foreign Entity Affidavit to the County



prior to any renewals of this Agreement. Failure or refusal to submit a Foreign Entity Affidavit shall be cause for immediate termination of this Agreement by the County.

#### **42) PUBLIC RECORDS**

- A. The cost of reproduction, access to, disclosure, non-disclosure, or exemption of records, data, documents, and/or materials, associated with this Agreement shall be subject to the applicable provisions of the Florida Public Records Law (Chapter 119, Florida Statutes), and other applicable State and Federal provisions. Access to such public records, may not be blocked, thwarted, and/or hindered by placing the public records in the possession of a third party, or an unaffiliated party.
- B. In accordance with Florida law, to the extent that Contractor's performance under this Contract constitutes an act on behalf of the County, Contractor shall comply with all requirements of Florida's public records law. Specifically, if Contractor is expressly authorized, and acts on behalf of the County under this Agreement, Contractor shall:
- (1) Keep and maintain public records that ordinarily and necessarily would be required by the County in order to perform the Services;
  - (2) Upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost as provided in Chapter 119, Florida Statutes, or as otherwise provided by law;
  - (3) Ensure that public records related to this Agreement that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by applicable law for the duration of this Agreement and following completion of this Agreement if the Contractor does not transfer the records to the County; and
  - (4) Upon completion of this Agreement, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the Services.
- C. If the Contractor transfers all public records to the County upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County's custodian of public records, in a format that is compatible with the County's information technology systems.

Failure by the Contractor to comply with the requirements of this section shall be grounds for immediate, unilateral termination of this Agreement by the County.

**IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: 500 San Sebastian View, St. Augustine, FL 32084, (904) 209-0805, [publicrecords@sjcfl.us](mailto:publicrecords@sjcfl.us)**

**END OF SECTION**

**OFFICIAL COUNTY BID FORMS  
WITH ATTACHMENTS**

IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

OFFICIAL COUNTY BID FORM ~ **OPTION A (10-MONTH CONSTRUCTION)**  
ST. JOHNS COUNTY, FLORIDA

PROJECT: FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: \_\_\_\_\_

**BID PROPOSAL OF**

\_\_\_\_\_  
Full Legal Company Name

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the IFB Documents and Specifications entitled for IFB No: 2016R; Flagler Estates Fire Station #21 & Sheriff's Office in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal for **Bid Option A** summarized as follows.

**BID OPTION A (COMPLETE PROJECT W/IN 10 MONTHS) – LUMP SUM BASE BID:** (As per plans and specifications)  
Bid Option A requires the awarded Contractor to complete the project within a ten (10) month timeframe. **See Section 25 on page 9 for additional information on the Bid Options.**

\$ \_\_\_\_\_  
Bid Option A: Base Bid Lump Sum Price (Numerical)

\_\_\_\_\_/100 Dollars  
Option A: Base Bid Lump Sum Bid Price (Amount written or typed in words)

- A. **ALLOWANCE 1:** Allowance for Bi-Directional Antenna (BDA) Equipment **\$ 40,000.00**  
(as specified on Exhibit "A" – Technical Specifications Section 01 21 00 – Allowances Part 3.03)
  
- B. **BID ALTERNATE 1: Addition of Storage Building** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(A))  
  
\$ \_\_\_\_\_  
Bid Alternate 1 Lump Sum Price (Numerical)
  
- C. **BID ALTERNATE 2: Reduced Spec for Apparatus Bay Doors** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(B))  
  
\$ \_\_\_\_\_  
Bid Alternate 2 Lump Sum Price (Numerical)
  
- D. **BID ALTERNATE 3: Addition of Water Tower** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(C))  
  
\$ \_\_\_\_\_  
Bid Alternate 3 Lump Sum Price (Numerical)

E. **BID ALTERNATE 4: Addition of Apparatus Bay Fan** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(D))

\$ \_\_\_\_\_  
Bid Alternate 4 Lump Sum Price (Numerical)

F. **BID ALTERNATE 5: Remove Canopies** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(F))

\$ \_\_\_\_\_  
Bid Alternate 6 Lump Sum Price (Numerical)

G. **BID ALTERNATE 6: Delete Coffee Station and Kitchen Island Millwork** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(G))

\$ \_\_\_\_\_  
Bid Alternate 7 Lump Sum Price (Numerical)

H. **BID ALTERNATE 7: Remove Building Automation** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(I))

\$ \_\_\_\_\_  
Bid Alternate 9 Lump Sum Price (Numerical)

I. **BID ALTERNATE 8: VE Floor Plan Reduction** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(J))

\$ \_\_\_\_\_  
Bid Alternate 10 Lump Sum Price (Numerical)

J. **BID OPTION A: TOTAL LUMP SUM BID:** (Option A Base Bid + Allowance and all Alternates)

\$ \_\_\_\_\_  
Option A: Total Lump Sum Bid (Numerical)

\_\_\_\_\_/100 Dollars  
Option A: Total Lump Sum Bid (Amount written or typed in words)

Bidder shall insert the Not-To-Exceed Bid Prices in numerals and in words. Any discrepancy between the two submitted amounts shall be determined by the amount written in words.

The Not-To-Exceed Bid Prices submitted above shall include any and all fees, taxes, surcharges, and any other costs associated with performing the work required by this Contract. The Not-To-Exceed Bid Prices above shall be the final price charged to the County for work performed.

The Not-To-Exceed Bid Prices offered in this Bid Proposal shall remain firm for a period of ninety (90) days from the Bid opening date.

OFFICIAL COUNTY BID FORM ~ **OPTION B (12-MONTH CONSTRUCTION)**  
ST. JOHNS COUNTY, FLORIDA

PROJECT: FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE

TO: THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA

DATE SUBMITTED: \_\_\_\_\_

**BID PROPOSAL OF**

\_\_\_\_\_  
Full Legal Company Name

\_\_\_\_\_  
Mailing Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

Bidders: Having become familiar with requirements of the project, and having carefully examined the IFB Documents and Specifications entitled for IFB No: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office in St. Johns County, Florida, the undersigned proposes to furnish all materials, labor and equipment, supervision and all other requirements necessary to comply with the Contract Documents to submit the following Bid Proposal for **Bid Option B** summarized as follows.

**BID OPTION B (COMPLETE PROJECT W/IN 10 MONTHS) – LUMP SUM BASE BID:** (As per plans and specifications)  
Bid Option B requires the awarded Contractor to complete the project within a ten (10) month timeframe. **See Section 25 on page 9 for additional information on the Bid Options.**

\$ \_\_\_\_\_  
Bid Option B: Base Bid Lump Sum Price (Numerical)

\_\_\_\_\_/100 Dollars  
Bid Option B: Base Bid Lump Sum Bid Price (Amount written or typed in words)

K. **ALLOWANCE 1:** Allowance for Bi-Directional Antenna (BDA) Equipment **\$ 40,000.00**  
(as specified on Exhibit "A" – Technical Specifications Section 01 21 00 – Allowances Part 3.03)

L. **BID ALTERNATE 1:** Addition of Storage Building (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(A))

\$ \_\_\_\_\_  
Bid Alternate 1 Lump Sum Price (Numerical)

M. **BID ALTERNATE 2:** Reduced Spec for Apparatus Bay Doors (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(B))

\$ \_\_\_\_\_  
Bid Alternate 2 Lump Sum Price (Numerical)

N. **BID ALTERNATE 3:** Addition of Water Tower (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(C))

\$ \_\_\_\_\_  
Bid Alternate 3 Lump Sum Price (Numerical)

O. **BID ALTERNATE 4: Addition of Apparatus Bay Fan** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(D))

\$ \_\_\_\_\_  
Bid Alternate 4 Lump Sum Price (Numerical)

P. **BID ALTERNATE 5: Remove Canopies** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(F))

\$ \_\_\_\_\_  
Bid Alternate 6 Lump Sum Price (Numerical)

Q. **BID ALTERNATE 6: Delete Coffee Station and Kitchen Island Millwork** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(G))

\$ \_\_\_\_\_  
Bid Alternate 7 Lump Sum Price (Numerical)

R. **BID ALTERNATE 7: Remove Building Automation** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(I))

\$ \_\_\_\_\_  
Bid Alternate 9 Lump Sum Price (Numerical)

S. **BID ALTERNATE 8: VE Floor Plan Reduction** (as per Exhibit "A" Technical Specifications Section 01 23 00 – Alternates 30.01(J))

\$ \_\_\_\_\_  
Bid Alternate 10 Lump Sum Price (Numerical)

T. **BID OPTION B: TOTAL LUMP SUM BID:** (Option B Base Bid + Allowance and all Alternates)

\$ \_\_\_\_\_  
Option A: Total Lump Sum Bid (Numerical)

\_\_\_\_\_/100 Dollars  
Option A: Total Lump Sum Bid (Amount written or typed in words)

Bidder shall insert the Not-To-Exceed Bid Prices in numerals and in words. Any discrepancy between the two submitted amounts shall be determined by the amount written in words.

The Not-To-Exceed Bid Prices submitted above shall include any and all fees, taxes, surcharges, and any other costs associated with performing the work required by this Contract. The Not-To-Exceed Bid Prices above shall be the final price charged to the County for work performed.

The Not-To-Exceed Bid Prices offered in this Bid Proposal shall remain firm for a period of ninety (90) days from the Bid opening date.

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

During the preparation of the Bid, the following addenda, if any, were received:

No.: \_\_\_\_\_ Date Received: \_\_\_\_\_

No.: \_\_\_\_\_ Date Received: \_\_\_\_\_

No.: \_\_\_\_\_ Date Received: \_\_\_\_\_

We, the undersigned, hereby declare that no person or persons, firm or corporation, other than the undersigned are interested, in this proposal, as principals, and that this proposal is made without collusion with any person, firm or corporation, and we have carefully and to our satisfaction examined the IFB Documents and Project Specifications.

We have made a full examination of the location of the proposed work and the sources of supply of materials, and we hereby agree to furnish all necessary labor, equipment and materials, fully understanding that any quantities shown therewith are approximate only, and that we will fully complete all requirements therein as prepared by the County, within the same time limit specified in the IFB Documents as indicated above.

If the Undersigned is notified of the acceptance of this Bid Proposal by the Board within ninety (90) calendar days for the time set for the opening of Bids, the Undersigned further agrees, to execute a contract for the above work within ten (10) days after notice that his Bid has been accepted for the above stated compensation in the form of a Contract presented by the County.

The Undersigned further agrees that security in the form of a Bid Bond, certified or cashier's check in the amount of not less than **five percent (5%) of Total Project Not-To-Exceed Bid Price**, payable to the County, accompanies this Bid; that the amount is not to be construed as a penalty, but as liquidated damages which said County will sustain by failure of the Undersigned to execute and deliver the Contract and Bond within ten (10) days of the written notification of the Award of the Contract to him; thereupon, the security shall become the property of the County, but if this Bid is not accepted within ninety (90) days of the time set for the submission of Bids, or if the Undersigned delivers the executed Contract upon receipt, the Security shall be returned to the Bidder within seven (7) working days.

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**CORPORATE/COMPANY**

Full Legal Company Name: \_\_\_\_\_ (Seal)

By: \_\_\_\_\_  
Signature of Authorized Representative (Name & Title typed or printed)

By: \_\_\_\_\_  
Signature of Authorized Representative (Name & Title typed or printed)

Address: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_ Fax No.: (\_\_\_\_) \_\_\_\_\_

Email Address for Authorized Company Representative: \_\_\_\_\_

Federal I.D. Tax Number: \_\_\_\_\_ DUNS #: \_\_\_\_\_  
(If applicable)

**Point of Contact (POC) to receive invitation from Payment Works for registration:**

Authorized POC: \_\_\_\_\_ Email Address for POC: \_\_\_\_\_  
(Name typed or printed)

**INDIVIDUAL**

Name: \_\_\_\_\_ (Signature)  
(Name typed or printed) (Title)

Address: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_ Fax No.: \_\_\_\_\_

Email Address: \_\_\_\_\_

Federal I.D. Tax Number: \_\_\_\_\_

**Point of Contact (POC) to receive invitation from PaymentWorks for registration to set up a PaymentWorks account OR Point of Contact (POC) who is currently connected to Company's existing PaymentWorks account:**

Authorized POC: \_\_\_\_\_ Email Address for POC: \_\_\_\_\_  
(Name typed or printed)

Each Bidder must submit all required forms and attachments. Failure to submit any required document may be grounds for disqualification due to non-responsiveness.

Submittal Requirements: Official County Bid Form, and all Attachments must be completed; along with a fully acknowledged copy of each Addendum applicable to this IFB and submitted with each copy of the Bid Proposal.



IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

ATTACHMENT "A"  
ST. JOHNS COUNTY AFFIDAVIT

Bidder shall complete and submit a sworn statement as part of the submitted Bid. This sworn statement shall be an Affidavit in the following form, executed by an officer/principal of the Bidder, and shall be sworn to before a person who is authorized by law to administer oaths.

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

The Undersigned authority, \_\_\_\_\_ ("Affiant"), who being duly sworn, deposes and states that he/she is the \_\_\_\_\_ (Title) of the Bidder \_\_\_\_\_ (Full Legal Name of Bidder) submitting the attached Bid for the services provided in the IFB Documents for **IFB No: 2016R; Flagler Estates Fire Station #21 & SJSO Field Office**, in St. Johns County, Florida.

The Affiant further states that no more than one Bid for the above-referenced project will be submitted from the Bidder, the Affiant, their firm or corporation under the same or different name, and that such Bidder has no financial interest in the firm of another Bidder for the same work. Affiant also states that neither he/she, the firm, association nor corporation of the Bidder has either directly or indirectly entered into any agreement, participated in any collusion, nor otherwise taken any action in restraint of free competitive bidding in connection with this firm's Bid on the above-described project. Furthermore, neither the firm nor any of its officers are barred from participating in public contract lettings in the State of Florida or any other state.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

\_\_\_\_\_  
Printed Title of Affiant

\_\_\_\_\_  
Full Legal Name of Consultant/Contractor

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Affiant, who is personally known to me or has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

ATTACHMENT "B"  
CERTIFICATES AS TO CORPORATE PRINCIPAL

I, \_\_\_\_\_, certify that I am the Secretary of the corporation named as Principal in the foregoing; that \_\_\_\_\_, (Authorized Representative of Bidder) who signed the Bond(s) on behalf of the Bidder, was then \_\_\_\_\_ (Title) of said corporation; that I know his/her signature; and his/her signature thereto is genuine; and that said bond(s) was duly signed, sealed, and attested to on behalf of said corporation by authority of its governing body.

\_\_\_\_\_  
Signature of Secretary

\_\_\_\_\_  
Full Legal Name of Corporation (Bidder)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Before and by me, a Notary Public duly commissioned, qualified and acting personally, being duly sworn upon oath by means of  physical presence or  online notarization, \_\_\_\_\_ (Authorized Representative of Bidder) states that he/she is authorized to execute the foregoing Bid Bond on behalf of the Bidder named therein in favor of St. Johns County, Florida.

Subscribed and sworn to me on this \_\_\_ day of \_\_\_\_\_, 20\_\_\_, by the Authorized Representative of Bidder, who is personally known to me or has produced \_\_\_\_\_ as identification. Type and Number of I.D. produced: \_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

(Attach Power of Attorney to original Bid Bond and Financial Statement of Surety Company)

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "C"  
LICENSE / CERTIFICATION LIST**

In the space below, the Bidder shall list all **current** licenses and certifications held.

*The bidder shall attach a copy of each current license and certification listed below to this form.*

*The bidder must attach a list of any and all relevant experience within the last five (5) years with the proposed scope of work.*

License(s)/Certificate(s)/ Pre-Qualifications	License #	Issuing Agency	Expiration Date
<b>State of Florida Business License</b>			
<b>Certified General Contractor (CGC)</b>			
<b>SJC Local Business Tax Receipt</b>			

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "D"  
LIST OF PROPOSED SUB-CONTRACTORS / SUPPLIERS**

Bidder shall submit any and all sub-contractors and/or major material suppliers proposed to perform any portion of the Work for review/approval by the County. Bidder shall attach any and all applicable licenses or certifications held by the proposed sub-contractor/supplier related to the portion of the Work for which they are proposed, as stated below. All subcontractors/suppliers are subject to the approval of the County.

Company Name	Work/Services to be Performed	Primary Contact Name	Contact Number and Email Address

ATTACHMENT "E"  
CONFLICT OF INTEREST DISCLOSURE FORM

Project (RFQ, RFP, IFB) Number/Description: IFB No 2016R; Flagler Estates Fire Station #21 & Sheriff's Office

The term "conflict of interest" refers to situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting a Contractor's professional judgment in completing work for the benefit of St. Johns County ("County"). The bias such conflicts could conceivably impart may inappropriately affect the goals, processes, methods of analysis or outcomes desired by the County.

Contractors are expected to safeguard their ability to make objective, fair, and impartial decisions when performing work for the benefit of the County. Contractors, therefore must there avoid situations in which financial or other considerations may adversely affect, or have the appearance of adversely affecting the Contractor's professional judgement when completing work for the benefit of the County.

The mere appearance of a conflict may be as serious and potentially damaging as an actual distortion of goals, processes, methods of analysis or outcomes. Reports of conflicts based upon appearances can undermine public trust in ways that may not be adequately restored even when the mitigating facts of a situation are brought to light. Apparent conflicts, therefore, should be disclosed and evaluated with the same vigor as actual conflicts.

It is expressly understood that failure to disclose conflicts of interest as described herein may result in immediate disqualification from evaluation or immediate termination from work for the County.

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Please check the appropriate statement:



I hereby attest that the undersigned Bidder has no actual or potential conflict of interest due to any other clients, contracts, or property interests for completing work on the above referenced project.



The undersigned Bidder, by attachment to this form, submits information which may be a potential conflict of interest due to other clients, contracts or property interests for completing work on the above referenced project.

Full Legal Name of Bidder: \_\_\_\_\_

Authorized Representative(s): \_\_\_\_\_

Signature

Print Name/Title

Signature

Print Name/Title

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "F"  
DRUG-FREE WORKPLACE FORM**

The undersigned firm, in accordance with Florida Statute 287.087 hereby certifies that

\_\_\_\_\_ does:

Full Legal Name of Bidder

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the danger of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the contractual services that are described in St. Johns County's request for proposals a copy of the statement specified in paragraph 1.
4. In the statement specified in paragraph 1, notify the employees that, as a condition of working on the contractual services described in paragraph 3, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Florida Statute 893, as amended, or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction or plea.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
6. Consistent with applicable provisions with State or Federal law, rule, or regulation, make a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1 through 5.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

\_\_\_\_\_  
Signature of Bidder's Authorized Representative

\_\_\_\_\_  
Date

**ATTACHMENT "G"**  
**CLAIMS, LIENS, LITIGATION HISTORY**

Bidders must complete all questions below and provide information requested as applicable. Failure to appropriately complete the questions below, or provide requested information may be grounds for disqualification. Any material misrepresentation of information may also be grounds for disqualification.

1. Within the past 7 years, has your organization filed suit or a formal claim against a project owner (as a prime or subcontractor) or been sued by or had a formal claim filed by an owner, subcontractor or supplier resulting from a construction dispute? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please attach additional sheet(s) to include:

Description of every action Captions of the Litigation or Arbitration

Amount at issue: \_\_\_\_\_ Name (s) of the attorneys representing all parties:

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Amount actually recovered, if any: \_\_\_\_\_

Name(s) of the project owner(s)/manager(s) to include address and phone number:

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2. List all pending litigation and or arbitration.

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3. List and explain all litigation and arbitration within the past seven (7) years - pending, resolved, dismissed, etc.

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4. Within the past 7 years, please list all Liens, including Federal, State and Local, which have been filed against your Company. List in detail the type of Lien, date, amount and current status of each Lien.

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5. Have you ever abandoned a job, been terminated or had a performance/surety bond called to complete a job?

Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please explain in detail:

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6. For all claims filed against your company within the past five (5) years, have all been resolved satisfactorily with final judgment in favor of your company within 90 days of the date the judgment became final? Yes \_\_\_ No \_\_\_  
If no, please explain why?

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7. List the status of all pending claims currently filed against your company:

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**Liquidated Damages**

1. Has a project owner ever withheld retainage, issued liquidated damages or made a claim against any Performance and Payment Bonds? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, please explain in detail:

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**(Use additional or supplemental pages as needed)**



**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE  
ATTACHMENT "H"**

**SWORN STATEMENT UNDER SECTION 287.133(3)(A), FLORIDA STATUTES ON PUBLIC ENTITY CRIMES**

I, \_\_\_\_\_ ("Affiant"), being duly authorized by and on behalf of \_\_\_\_\_  
\_\_\_\_\_ ("Bidder") hereby swears or affirms as follows:

1. The principal business address of Bidder is: \_\_\_\_\_  
\_\_\_\_\_
2. I am duly authorized as \_\_\_\_\_ (Title) of Bidder.
3. I understand that a public entity crime as defined in Section 287.133 of the Florida Statutes includes a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity in Florida or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
4. I understand that "convicted" or "conviction" is defined in Section 287.133 of the Florida Statutes to mean a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilt or nolo contendere.
5. I understand that "affiliate" is defined in Section 287.133 of the Florida Statutes to mean (1) a predecessor or successor of a person or a corporation convicted of a public entity crime, or (2) an entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime, or (3) those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate, or (4) a person or corporation who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months.
6. Neither the Bidder, nor any officer, director, executive, partner, shareholder, employee, member or agent who is active in the management of the Offeror or contractor, nor any affiliate of the Offeror or contractor has been convicted of a public entity crime subsequent to July 1, 1989. **(Draw a line through paragraph 6 if paragraph 7 below applies.)**
7. There has been a conviction of a public entity crime by the Respondent, or an officer, director, executive, partner, shareholder, employee, member or agent of the Bidder who is active in the management of the Bidder or an affiliate of the Bidder. A determination has been made pursuant to Section 287.133(3) by order of the Division of Administrative Hearings that it is not in the public interest for the name of the convicted person or affiliate to appear on the convicted vendor list. The name of the convicted person or affiliate is \_\_\_\_\_. A copy of the order of the Division of Administrative Hearings is attached to this statement. **(Draw a line through paragraph 7 if paragraph 6 above applies.)**

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name & Title of Affiant

\_\_\_\_\_  
Full Legal Name of Bidder

\_\_\_\_\_  
Date of Signature

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by Affiant, who is  personally known to me or  has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My Commission Expires

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT "I"  
NON-COLLUSION CERTIFICATION**

St. Johns County requires, as a matter of policy, that any Firm receiving a contract or award resulting from the Invitation for Bid issued by St. Johns County shall make certification as below. Receipt of such certification, under oath, shall be a prerequisite to the award of contract and payment thereof.

I (we) hereby certify that if the contract is awarded to me, our firm, partnership or corporation, that no members of the elected governing body of St. Johns County nor any professional management, administrative official or employee of the County, nor members of his or her immediate family including spouse, parents or children, nor any person representing or purporting to represent any member or members of the elected governing body or other official, has solicited, has received or has been promised, directly or indirectly, any financial benefit including but not limited to a fee, commission, finder's fee, political contribution, goods or services in return for favorable review of any Bids submitted in response to the Invitation for Bid or in return for execution of a contract for performance or provision of services for which Bids are herein sought.

Handwritten Signature of Authorized Principal(s) of Bidder:

NAME (print): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

FULL LEGAL NAME OF PROVIDER:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ATTACHMENT "J"  
E-VERIFY AFFIDAVIT

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_ (hereinafter "Affiant"), being duly authorized by and on behalf of \_\_\_\_\_ (hereinafter "Contractor") hereby swears or affirms as follows:

1. Contractor understands that E-Verify, authorized by Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), is a web-based system provided by the United States Department of Homeland Security, through which employers electronically confirm the employment eligibility of their employees.
2. For the duration of Contract No. \_\_\_\_\_ (hereinafter "Agreement"), in accordance with section 448.095, F.S., Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor and shall expressly require any subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor.
3. Contractor shall comply with all applicable provisions of section 448.095, F.S., and will incorporate in all subcontracts the obligation to comply with section 448.095, F.S.
4. Contractor understands and agrees that its failure to comply with all applicable provisions of section 448.095, F.S. or its failure to ensure that all employees and subcontractors performing work under the Agreement are legally authorized to work in the United States and the State of Florida constitute a breach of the Agreement for which St. Johns County may immediately terminate the Agreement without notice and without penalty. The Contractor further understands and agrees that in the event of such termination, Contractor shall be liable to the St. Johns County for any costs incurred by the St. Johns County resulting from Contractor's breach.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

\_\_\_\_\_  
Printed Title of Affiant

\_\_\_\_\_  
Full Legal Name of Consultant/Contractor

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Affiant, who is personally known to me or has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

**ATTACHMENT "K"**  
**EQUAL OPPORTUNITY REPORT STATEMENT**

The Bidder shall complete the following statement by signing this form where indicated. Failure to complete this form may be grounds for rejection of bid:

The awarded Contractor shall comply with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as amended) prohibiting employment discrimination and shall comply with the regulations and guidelines promulgated pursuant to this Act by the Secretary of the Interior and the Heritage Conservation and Recreation Service.

During the performance of this contract, the awarded Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub-Contractor or vendor. The Contractor will take such

action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a sub-Contractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Handwritten Signature of Authorized Principal(s) of Bidder:

NAME (print): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

FULL LEGAL NAME OF BIDDER: \_\_\_\_\_

DATE: \_\_\_\_\_

ATTACHMENT "L"

Affidavit Regarding the Use of Coercion for Labor and Services

Section 787.06(13), Florida Statutes requires all nongovernmental entities executing, renewing, or extending a contract with a governmental entity to provide an affidavit signed by an officer or representative of the nongovernmental entity under penalty of perjury that the nongovernmental entity does not use coercion for labor or services as defined in that statute.

As an officer or authorized representative of Bidder, I certify that the company identified below does not, for labor or services:

- Use or threaten to use physical force against any person;
- Restrain, isolate, or confine or threaten to restrain, isolate, or confine any person without lawful authority and against her or his will;
- Use lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied toward the liquidation of the debt, the length and nature of the labor or services are not respectively limited and defined;
- Destroy, conceal, remove, confiscate, withhold, or possess any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification document, of any person;
- Cause or threaten to cause financial harm to any person;
- Entice or lure any person by fraud or deceit; or
- Provide a controlled substance as outlined in Schedule I or Schedule II of s. 893.03 to any person for the purpose of exploitation of that person.

Under penalties of perjury, I declare and affirm that I have read the foregoing document and that the facts stated in it are true and correct.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Printed Name of Affiant

\_\_\_\_\_  
Printed Title of Affiant

\_\_\_\_\_  
Full Legal Name of Bidder

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Affiant, who is personally known to me or has produced \_\_\_\_\_ as identification.

\_\_\_\_\_  
Notary Public  
My Commission Expires: \_\_\_\_\_

**ATTACHMENT "M"**  
**SCRUTINIZED COMPANIES LIST**

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies, for products or services over \$1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Bidder, I hereby certify that the company identified below is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject the company to civil penalties, attorney's fees, and/or costs.

Handwritten Signature of Authorized Principal(s):

NAME (print): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TITLE: \_\_\_\_\_

NAME OF FIRM: \_\_\_\_\_

DATE: \_\_\_\_\_

**IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE**

**ATTACHMENT N"  
ACKNOWLEDGEMENT OF ADDENDA**

Bidder hereby acknowledges receipt of the following Addenda, issued by the County and incorporated into and made a part of the IFB Documents. By acknowledging the Addenda listed below, Bidder hereby certifies that the information, clarifications, revisions, or other items included in each Addenda have been incorporated into the Bidder's Bid. Failure to acknowledge and incorporate issued Addenda may result in a Bidder being deemed non-responsive to the requirements of the IFB and removed from further consideration.

<b>ADDENDUM NUMBER</b>	<b>DATE RECEIVED</b>	<b>PRINT NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>	<b>TITLE OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>	<b>SIGNATURE OF BIDDER'S AUTHORIZED REPRESENTATIVE</b>



IFB NO: 2016R; FLAGLER ESTATES FIRE STATION #21 & SJSO FIELD OFFICE

**BID BOND**

STATE OF FLORIDA  
COUNTY OF ST. JOHNS

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are held and firmly bound unto St. Johns County, Florida, in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) lawful money of the United States, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATIONS IS SUCH that whereas the Principal has submitted the accompanying Bid, dated , 20\_\_.

For  
**FLAGLER ESTATES FIRE STATION #21 & SHERIFF'S OFFICE**  
St. Johns County, Florida

NOW THEREFORE,

- (a) If the Principal shall not withdraw said Bid within ninety (90) days after Bid Award date, and shall within ten (10) days after prescribed forms are presented to him for signature, enter into a written Contract with the County in accordance with the Bid as accepted, and give Bond with good and sufficient Surety or Sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.
- (b) In the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such Bond within the time specified, if the Principal shall pay the County the difference between the amount specified, in said Bid and the amount for which the County may procure the required Work and supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals, this day of \_\_\_\_\_ A.D., 20\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WITNESSES:

(If Sole Ownership or Partnership two (2) Witnesses required).  
(If Corporation, Secretary only will attest and affix seal).

WITNESSES:

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PRINCIPAL:

NAME OF FIRM:

SIGNATURE OF AUTHORIZED  
OFFICER (AFFIX SEAL)

TITLE

BUSINESS ADDRESS

CITY

STATE

WITNESS:

---

SURETY:

CORPORATE SURETY

ATTORNEY-IN-FACT (AFFIX SEAL)

BUSINESS ADDRESS

CITY


STATE

NAME OF LOCAL INSURANCE AGENCY

**SEALED BID MAILING LABEL**

**Cut along the outer border and affix this label  
to your sealed bid envelope to identify it as a  
"Sealed BID"**

<b>SEALED BID • DO NOT OPEN</b>	
<b>SEALED BID NO.:</b>	<b>IFB NO: 2016R</b>
<b>IFB TITLE:</b>	<b>FLAGLER ESTATES FIRE STATION #21 &amp; SJSO FIELD OFFICE</b>
<b>DUE DATE/TIME:</b>	<b>By 2:00PM EST– December 20, 2024</b>
<b>SUBMITTED BY:</b>	Company Name
	Company Address
	Company Address
<b>DELIVER TO:</b>	St. Johns County Purchasing Department 500 San Sebastian View St. Augustine FL 32084



**END OF DOCUMENT**

# CONTRACT DOCUMENTS FOR: FIRE STATION #21 & SHERIFF'S OFFICE

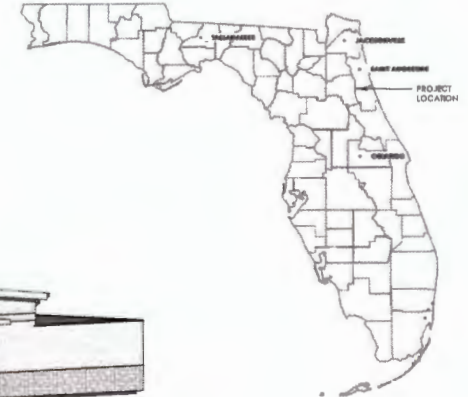
20213261.0012

4630 MELANIE STREET  
HASTINGS, FL 32145

NOVEMBER 15, 2024



VICINITY MAP:



**CLIENT:**



ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

ARCHITECTURAL, CIVIL & STRUCTURAL:

**PASSERO**  
engineering architecture

4730 CASA COLA WAY, SUITE 200 (904) 757-6106  
ST. AUGUSTINE, FL 32095

LANDSCAPE:



MARQUIS LATIMER + HABACK, INC.  
34 CORDOVA, SUITE A  
ST. AUGUSTINE, FL 32084

MEP:

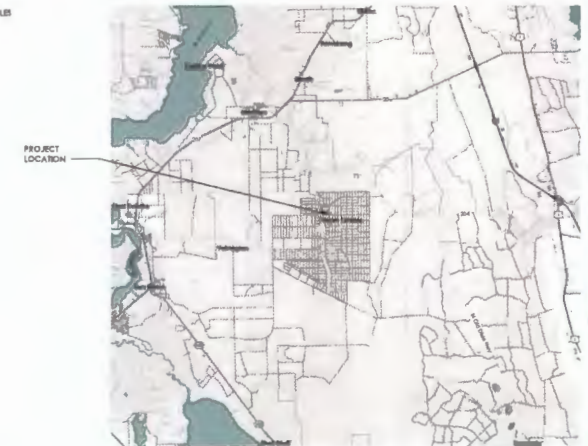


4245 Land Road (678) 244-5166  
8all Ground, GA 30107

DRAWING INDEX:

<p><b>GENERAL</b> G-001 SYMBOLS &amp; DETAILS G-002 TYPICAL ACCESSIBILITY DETAILS G-003 CODE SHEET G-004 WALL TYPES</p> <p><b>LANDSCAPE</b> L-1.1 TREE REMOVAL PLAN L-1.1 LANDSCAPE PLAN L-3.2 LANDSCAPE ENLARGEMENT L-3.3 LANDSCAPE ENLARGEMENT L-3.4 LANDSCAPE SCHEDULE L-3.5 LANDSCAPE DETAILS</p> <p><b>CIVIL</b> C-001 GENERAL NOTES C-002 SWFP PLAN C-003 SWFP PLAN C-004 SWFP PLAN C-005 SWFP PLAN C-100 TOPOGRAPHIC SITE SURVEY C-101 GEOTECHNICAL BORING LOG C-102 GEOTECHNICAL BORING LOG C-200 BASECOURSE CONTROL &amp; DEMOLITION PLAN C-300 OVERALL SITE PLAN C-301 800 PLAN C-302 SITE GEOMETRY PLAN C-303 STRENGTH SIGNAGE &amp; MISC. SITE LAYOUT C-400 GRADING PLAN C-401 DRAINAGE PLAN C-300 UTILITY PLAN C-401 SITE DETAILS C-402 SITE DETAILS C-403 SITE DETAILS C-404 SITE DETAILS C-405 SITE DETAILS C-404 SITE DETAILS C-407 SITE DETAILS C-408 SITE DETAILS C-409 SITE DETAILS C-410 SITE DETAILS</p> <p><b>ARCHITECTURAL</b> A-100 FLOOR PLAN A-101 ROOF PLAN A-110 REFLECTED CEILING PLAN A-200 EXTERIOR ELEVATIONS A-201 EXTERIOR ELEVATIONS A-300 BUILDING SECTIONS A-310 WALL SECTIONS A-311 WALL SECTIONS A-312 WALL SECTIONS</p>	<p>A-313 WALL SECTIONS A-314 WALL SECTIONS - ROOF DETAILS A-315 WALL SECTIONS - FOUNDATION DETAILS A-316 WALL SECTIONS - STUCCO DETAILS A-317 WALL SECTIONS - CANOPY DETAILS A-400 EXHIBIT/DAY ROOM - ENLARGED PLANS AND DETAILS A-401 KITCHEN/DAY ROOM - MILLWORK DETAILS A-402 EXHIBIT/DAY ROOM - MILLWORK DETAILS A-403 EXHIBIT/DAY ROOM - MILLWORK DETAILS A-404 BUREAU ROOM - ENLARGED PLANS AND DETAILS A-405 BUREAU ROOM - MILLWORK DETAILS A-406 SHERIFF OFFICES - ENLARGED PLANS AND DETAILS A-407 SHERIFF OFFICES - MILLWORK DETAILS A-408 TOILET ROOMS - ENLARGED PLANS AND DETAILS A-409 TOILET ROOMS - ENLARGED PLANS AND DETAILS CONE A-410 APPARATUS BAY - ENLARGED PLANS AND DETAILS A-501 STANDARD METAL ROOF DETAILS A-502 STANDARD METAL ROOF DETAILS A-503 SHORER BASE &amp; TRANSITION DETAILS A-600 FINISH PLANS A-601 DOOR &amp; WINDOW SCHEDULES A-602 HEAD, JAMB &amp; SILL DETAILS A-603 FURNITURE &amp; EQUIPMENT PLAN A-604 INTERIOR SIGNAGE - INSTALLATION PLAN A-605 INTERIOR SIGNAGE LEGEND</p> <p><b>STRUCTURAL</b> S-001 GENERAL NOTES S-002 DESIGN CURVE/RA AND SCHEDULES S-003 SPECIAL INSPECTIVE S-101 FOUNDATION SLAB PLAN S-102 ROOF FRAMING PLAN S-201 SECTIONS &amp; DETAILS S-301 TYPICAL CONCRETE DETAILS S-302 TYPICAL STEEL DETAILS S-303 TYPICAL STEEL DETAILS S-304 TYPICAL WOODWORK DETAILS</p> <p><b>MECHANICAL</b> M-001 MECHANICAL NOTES M-001 MECHANICAL FLOOR PLAN M-002 MECHANICAL ROOF PLAN M-001 MECHANICAL SECTIONS M-002 MECHANICAL 3D VIEW M-001 MECHANICAL SCHEDULES M-001 MECHANICAL DETAILS M-002 MECHANICAL DETAILS</p>	<p><b>PLUMBING</b> P-001 PLUMBING NOTES P-201 SANITARY FLOOR PLAN P-301 DOMESTIC WATER FLOOR PLAN P-301 SANITARY BOMETRIC P-302 WATER BOMETRIC AND GAS BOMETRIC P-701 PLUMBING DETAILS</p> <p><b>FIRE</b> FA-201 FIRE ALARM NOTES FA-201 FIRE ALARM PLAN FS-201 FIRE SPRINKLER FLOOR PLAN</p> <p><b>ELECTRICAL</b> E-001 ELECTRICAL NOTES E-002 ELECTRICAL NOTES E-101 ELECTRICAL SITE PLAN E-102 ELECTRICAL SITE PHOTOMETRICS E-201 LIGHTING FLOOR PLAN E-301 POWER FLOOR PLAN E-401 MECHANICAL POWER FLOOR PLAN E-402 MECHANICAL POWER ROOF PLAN E-401 ELECTRICAL ONE LINE DIAGRAM E-401 ELECTRICAL PANEL SCHEDULES E-701 ELECTRICAL DETAILS E-801 ELECTRICAL VOICEDATA FLOOR PLAN E-802 ELECTRICAL AUDIO/VISUAL &amp; SECURITY PLAN</p>	<p><b>ALTERNATE:</b> ALT 1: SHERIFF STORAGE FACILITY</p> <p><b>ARCHITECTURAL</b> A1-100 STORAGE BUILDING PLANS ELEVATION</p> <p><b>STRUCTURAL</b> S1-100 STORAGE BUILDING PLANS AND DETAILS</p> <p><b>MECHANICAL</b> A1-44-001 MECHANICAL NOTES A1-44-001 MECHANICAL FLOOR PLANS AND SCHEDULES</p> <p><b>FIRE</b> A1-FB-201 FIRE SPINKLER FLOOR PLAN</p> <p><b>ELECTRICAL</b> A1-E-001 ELECTRICAL NOTES A1-E-002 ELECTRICAL NOTES A1-E-001 ELECTRICAL FLOOR PLANS A1-E-001 ELECTRICAL ONE LINE DIAGRAM A1-E-001 ELECTRICAL DETAILS</p>
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LOCATION MAP:



**BID SET**

**GENERAL NOTES:**

- DESIGN AND CONSTRUCTION SHALL CONFORM TO ALL LOCAL AND STATE CODES, INCLUDING (BUT NOT LIMITED TO) THE 2023 FLORIDA BUILDING CODE, NFPA 101 LIFE SAFETY CODE, OSHA AND OTHER CODE GOVERNED BY THE JURISDICTION IN WHICH THE PROJECT IS BEING CONSTRUCTED.
- THE CONTRACTOR SHALL COMPLETE, FINISH AND MAINTAIN PROJECT OF THE AREAS INDICATED BY THE CONTRACT DOCUMENTS, AND SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE SAME, REGARDLESS OF WHETHER OR NOT EACH AND EVERY NECESSARY WORK OR ITEMS IS SPECIFICALLY INDICATED ON ANY OTHER PORTION OF THE DRAWINGS AND CONTRACT DOCUMENTS.
- WHERE MATERIALS SPECIFIED ON DRAWINGS ARE NECESSARY TO COMPLETE THE WORK OF THE CONTRACT SPECIFIED HEREIN, PROVIDE BEST QUALITY MATERIALS. WHERE MATERIALS ARE SPECIFIED TO MATCH EXISTING, PROVIDE CLOSEST POSSIBLE MATCH, SUBJECT TO OWNERS APPROVAL. ALL ITEMS AND WORK ON DRAWINGS ARE NEW, UNLESS INDICATED OTHERWISE. ALL WORK WHICH HAS BEEN DAMAGED OR REPLACED OR REPAIRED, WHERE REPAIR CANNOT BE REPAIRED TO A NEW CONDITION, OR WHERE THE STRUCTURAL INTEGRITY HAS BEEN AFFECTED, ITEMS SHALL BE REPLACED, AT NO COST TO THE OWNER.
- ALL CONTRACTORS ARE RESPONSIBLE TO VERIFY ALL SITE, FIELD AND BUILDING CONDITIONS PRIOR TO SUBMITTING BIDS AND COMMENCED WORK. IF THERE ARE ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS, CONFERENCE WITH ARCHITECT / ENGINEER AND CONSTRUCTION MANAGER FOR RESOLUTION.
- ALL PENETRATIONS THROUGH FLOORS AND WALL HEIGHT WALLS TO BE FIRE STOPPED AS REQUIRED BY IBC CODE. ALL GAPS AND JOINTS AT RATED ROOFS, ROOMS AND WALLS & INTERSECTION OF WALLS, TO BE FIRE STOPPED, GAPS & JOINTS INCLUDE BUT ARE NOT LIMITED TO: TOP OF WALL TO FLOOR OR ROOF DECK, WALL TO BEAM, AND CORNER OF PARTITION JOINTS. FIRE STOPPING INCLUDES BOTH FORM OF PACKING MATERIAL AND THE FILL, VOID OR CAVITY MATERIAL.
- PROVIDE FIRE BLOCKING IN CONCEALED SPACES AS PER IBC CODE.
- EXTERIOR PERIMETER OF ALL WINDOWS, DOOR FRAMES, LOUVERS OR OTHER ITEMS INSERTED IN AN EXTERIOR WALL SHALL BE SEALED WEATHER TIGHT WHETHER INDICATED ON DRAWINGS OR NOT.
- WOOD USED FOR BLOCKING OR OTHER PURPOSES ON OR ABOVE THE ROOF DECK, WITHIN 2'-0" OF GRADE AND OTHER LOCATIONS OUTSIDE THE BUILDING ENVELOPE WHERE EXPOSED TO THE WEATHER, SHALL BE PRESUR-TREATED TYPE "A".
- FINISHED DOOR OPENINGS SHALL BE NOMINAL 8" FROM FINISHED CORNER OF ROOM AT HINGE SIDE, EXCEPT WHERE DIMENSIONED OTHERWISE. ON THE PULL SIDE OF A DOOR OPENING, THE STILE SIDE SHALL BE NOMINAL 1" FROM A PERPENDICULAR WALL. ON THE PUSH SIDE OF A DOOR OPENING EQUIPPED WITH BOTH A CLOSER AND LATCH, THE STILE SIDE SHALL BE NOMINAL 1" FROM A PERPENDICULAR WALL.
- INTERIOR AND EXTERIOR CONCRETE SLABS SHALL BE SEPARATED FROM ANY VERTICAL SURFACE WITH AN ISOLATION JOINT. ALL SLAB-ON-GRADE (CONTROL, EXPANSION, ETC.) JOINTS TO RECEIVE SEALANT FOR EACH PROTECTION.
- UNLESS OTHERWISE SHOWN, FOOTINGS SHALL BEAR ON FIRM LEVEL AND UNDISTURBED NATURAL SOIL OR SOLID ROCK. BEARING GRADE SHALL BE FREE OF WATER, FROST, ROCKS, MATERIALS THAT COULD DECOMPOSE AND OF OTHER LOOSE MATERIALS. SEE STRUCTURAL DRAWINGS FOR FURTHER SPECIFICATIONS.
- PROVIDE CONCEALED SOLID WOOD BLOCKING IN ALL PARTITIONS, IF STRUCTURE OR SURFACE MOUNTED ITEMS ARE SPECIFIED.
- REMOVE DEBRIS AND OTHER MATERIALS RESULTING FROM DEMOLITION OF CONSTRUCTION PROBLEMS AS DEMOLITION OF CONSTRUCTION PROGRESS. REMOVE RUBBER FROM JOB SITE REGULARLY AND LEAVE PREMISES AND WORK IN CLEAN CONDITION. RUBBER SHALL NOT BE ALLOWED TO ACCUMULATE AND SHALL BE APPROPRIATELY DISPOSED OF PRIOR TO COMPLETION, CLEAN REUSE BY OWNER.
- ALL CONTRACTORS ARE TO COORDINATE THE WORK WITH EACH OTHER, SO THAT THE WORK AND SCHEDULE ARE NOT IMPAIRED. SCHEDULE THE WORK THROUGHOUT THE ENTIRE PROJECT TO PREVENT CONFLICTS AND INTERFERENCES. OBTAIN ALL NECESSARY INFORMATION SUCH AS SEES, LOCATIONS, DIMENSIONS, LAYOUT, DIMENSIONS AND ALL OTHER INFORMATION NECESSARY FOR A PROPER AND WELL-COORDINATED INSTALLATION PRIOR TO INSTALLATION OF ITEMS, CONFERENCE WITH EACH CONTRACTOR FOR EXACT LOCATION OF ALL ITEMS.

**FIRE PROTECTION DURING CONSTRUCTION:**

- FIRE PROTECTION DURING CONSTRUCTION - FLORIDA FIRE PREVENTION CODE LATEST EDITION:**
- STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND THE CHAPTER.
  - THE SUITABILITY, DISTRIBUTION, AND MAINTENANCE OF EXTINGUISHERS SHALL BE IN ACCORDANCE WITH SECTION 13.6 [241.7.7].
  - AT LEAST ONE APPROVED FIRE EXTINGUISHER ALSO SHALL BE PROVIDED IN PLAIN SIGHT ON EACH FLOOR AT EACH USABLE STAIRWAY AS SOON AS COMBUSTIBLE MATERIAL ACCUMULATES. [241.7.7.4]
  - SUITABLE FIRE EXTINGUISHERS SHALL BE PROVIDED ON SELF-PROPELLED EQUIPMENT. [241.7.7.5]
  - A WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ACCUMULATES. [241.8.2.1]
- FLAMMABLE AND COMBUSTIBLE LIQUIDS AND FLAMMABLE GASES - FLORIDA FIRE PREVENTION CODE LATEST EDITION
    - STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE IN ACCORDANCE WITH CHAPTER 46, UNLESS OTHERWISE MODIFIED BY 14.2.5.1.5.1.1
    - STORAGE OF CLASS I AND CLASS II LIQUIDS SHALL NOT EXCEED 40 GAL (227 L) WITHIN 50 FT (15 M) OF THE STRUCTURE. [241.5.5.1.2]
    - STORAGE AREAS SHALL BE KEPT FREE OF WRECK, DEBRIS, AND COMBUSTIBLE MATERIAL NOT NECESSARY TO THE STORAGE. [241.5.5.1.3]
    - OPEN FLAMES AND SMOKING SHALL NOT BE PERMITTED IN FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE AREAS. [241.5.5.1.4]
    - SUCH STORAGE AREAS SHALL BE APPROPRIATELY POSTED AS "NO SMOKING" AREAS. [241.5.5.1.5]
    - CLASS I AND CLASS II LIQUIDS SHALL BE KEPT IN APPROVED SAFETY CONTAINERS. [241.5.5.2.2]
    - CLASS I LIQUIDS SHALL BE DEFENSED ONLY WHERE THERE ARE NO OPEN FLAMES OR OTHER SOURCES OF IGNITION WITHIN THE POSSIBLE PATH OF VAPOR TRAVEL. [241.5.5.2.4]

**BIDDER NOTES :**

- BIDDERS SHALL REVIEW DOCUMENTS INDEX AND VERIFY THAT THEY HAVE RECEIVED ALL COPIES OF ALL DOCUMENTS. DO NOT BID THE PROJECT OF COMMENCE MANUFACTURING WITHOUT HAVING A COMPLETE SET OF DOCUMENTS.
- BIDDERS SHALL PROMPTLY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY AMBIGUITY, INCONSISTENCY, OR ERROR WHICH THEY MAY DISCOVER UPON EXAMINATION OF THE BIDDING DOCUMENTS. DO NOT BID OR PROCEED IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES ARE FULLY RESOLVED.
- PRIOR TO SUBMITTING BIDS, THE CONTRACTOR SHALL VISIT THE JOB SITE TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS. THEY SHALL IMMEDIATELY NOTIFY THE ARCHITECT, IN WRITING, IF ANY DISCREPANCIES OR INCONSISTENCIES EXIST. FAILURE TO VERIFY THE EXISTING CONDITIONS SHALL NOT RELIEVE THE CONTRACTOR OF ANY LIABILITY OR RESPONSIBILITIES RESULTING FROM THIS FAILURE.
- THE CONTRACTOR SHALL INCLUDE, IN HIS BID, ALL COSTS ASSOCIATED WITH MATERIAL HANDLING, STORAGE AND DELIVERY.
- REFER TO BID FORM SPECIFICATION SECTION 01 23 05 - ALTERNATIVES, C-301 BID PLAN FOR OVERVIEW OF ALTERNATIVES. ALTERNATIVES ARE FURTHER DEFINED BY SPECIFICATION AND DRAWINGS INDICATED.

**MATERIALS SYMBOLS**

- EARTH/COMPACT FILL
- ROCK
- BRICK (PLAN SECTION)
- METALS SECTION
- PLYWOOD
- BATT/LOOSE INSUL
- GLASS (ELEVATION)
- POROUS FILL/GRAVEL
- CONCRETE (PLAN/SECTION)
- BRICK (ELEVATION)
- ARCHITECTURAL ROOF SINGLE
- WOOD, FINISHED
- CERAMIC TILE (ELEV)
- SPRAY FREE ROOF (SECOND MEMBER)
- SAND/MORTAR PLASTER (ELEV)
- CONCRETE BLK
- WOOD BLOCKING (SECTION)
- SOLID INSUL
- PLASTER/PLAS BD. (ELEV)
- GLASS BLOCK

**GRAPHIC SYMBOLS**

- ROOM NAME/NUMBER INDICATOR
- WORK POINT (ELEV/PLAN, FLOOR, ROOF)
- COLUMN NO. (NEW)
- COLUMN NO. (EXISTING)
- CENTER LINE
- WINDOW/FRAME TYPE
- DOOR NUMBER
- WALL TYPE (FIRE RATING)
- WALL TYPE ONLY
- REVISION
- NORTH ARROW
- INTERIOR ELEVATION INDICATOR
  - ELEV. NUMBER
  - SHEET LOCATED
  - INDICATED # OF VIEW
- WALL SECTION INDICATOR
  - NO. OF SECTION
  - SHEET LOCATED ON
- PLAN DETAIL INDICATOR
  - NO. OF SECTION (PLAN DETAIL)
  - SHEET LOCATED ON (PLAN DETAIL)
- REVISION (PLACE / DATE IN REVISED PORTION OF SH.)
- NEW DOOR
- EXISTING DOOR
- DOOR REMOVED

**ABBREVIATIONS**

ADP	AIR DELIVERY	CONC	CONCRETE	EXPJ	EXPANSION JOINT	H.P.L.R.	HIGH POINT, LOWER ROOF	MEB	MENSURABLE	FF	FRAMED	GSP	SUSPENDED
AD	ACCESS DOOR	CMH	CONCRETE MASONRY UNIT	RFWD	REFURBISH	K.E.L.R.	KEY LEVEL, UPPER ROOF	MIC	MICROFILM	FRUJ	FRUSTRATION	SW	SWITCH
ACT	ACTUATOR	CNTR	CONSTRUCTION	EXN	EXTENSION	NM	NON METAL	MOD	MODULAR	FL	PROPERTY LINE	SWD	SWITCHBOARD
ADD	ADDENDUM	CILL	CONTRACT LIMIT LINE	RS	RESISTOR	RDC	ROOF DRAIN DISPLAY BARNS	MFP	METAL FINISH	PYS	PYREX	SYM	SYMMETRICAL
ADU	ADULTERATION	COB	CONCRETE	FACT	FACTORY	ID	INSIDE DIAMETER	NT	NET WEIGHT	QTY	QUANTITY	TR	TRUCKBOARD
AJC	AIR CONDITIONING	CNTOR	CONTRACTOR	SCU	SAN COOL UNIT	IBC	INSTALLATION BY CONSTRUCTION	NR	NONE REDUCTION COEFFICIENT	TAID	TANK	TB	TELEPHONE
ALU	ALUMINUM	CJ	CONCRETE JOINT	FIN	FINISHED	IGL	INSULATED GLASS	RNL	RAIN WATER LEADER	RWL	RAIN WATER LEADER	TV	TELEVISION
AMB	AMBIENT	CP	CORNER PLATE	PRM	PRIMER	INFIL	INFILTRATION	SM	SHEET METAL	RECT	RECTANGULAR (SECTION)	TEMP	TEMPERATURE, TEMPORARY
APPX	APPROXIMATE	CR	CORNER	FR	FRONT	INT	INTERIOR	NIC	NOT IN CONTRACT	RF	REFLECTANCE (RADIANT)	TEMPGL	TEMPERATURE, GLASS
AR	ARCHITECTURE	CHR	CHURCH	FR	FIRE RESISTANT	JAN	JANITORY	RS	RESIST TO SEAR	RF2	REFLECTANCE (CONCRETE/FIRE)	REX	REXURSE
APPRX	APPROXIMATE	CHS	COUNTER SINK	FR	FIRE STOPPING	JAN	JANITORY	RF	REFLECTIVE	RD	RIGHT OF WAY	RHS	RIGHT HAND SIDE
ARCH	ARCHITECTURAL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	RF2GD	REFLECTANCE (CONCRETE/FIRE)	RI	RIGHT OF WAY
ATH	ATHLETIC	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
AUTO	AUTOMATIC	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BLDG	BUILDING	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BKG	BACKGROUND	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BNG	BENDING	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BRE	BREASTING	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BR	BREASTING	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BRS	BREASTING	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BTD	BUILDING TRIM	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BTL	BUILDING TRIM	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BUL	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BUT	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY
BU	BUILDING UL	CS	CORNER	FR	FIRE STOPPING	CD	CENTRAL DISTRICT	RQ	RIGHT QUANTITY	REV	REVISION	RW	RIGHT OF WAY

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St. Augustine, Florida 32084

**Passero Associate**

1000 ORANGE BLVD, SUITE 200  
ST. AUGUSTINE, FL 32084

NO.	DATE	BY	DESCRIPTION

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**SYMBOLS & DETAILS**

4630 MELANIE STREET  
FIRE STATION # 21 & SHERIFF'S OFFICE  
COUNTY: St. Johns STATE: FLA.

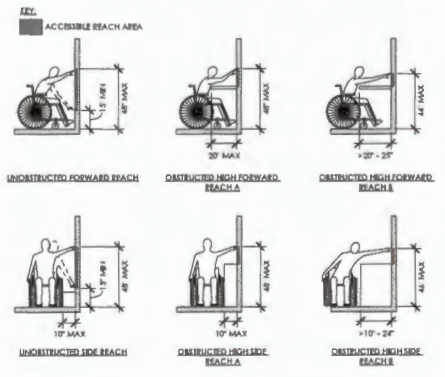
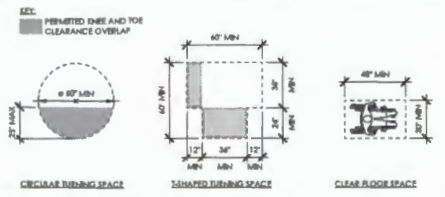
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G-001

NOVEMBER 15, 2024

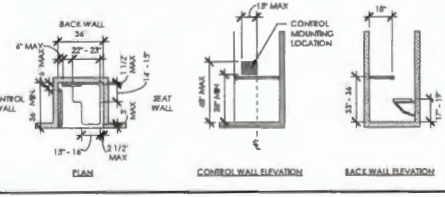
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**ACCESSIBLE CLEAR SPACE AND REACH REQUIREMENTS**

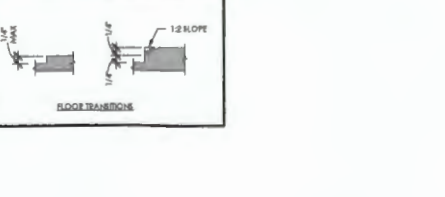


NOTE: ALL OPERABLE DEVICES TO BE WITHIN THE ACCESSIBLE REACH AREA (E. LIGHT SWITCHES, SOAP DISPENSERS, ELEVATOR CALL BUTTONS, ETC.)

**ACCESSIBLE BATHING FACILITY REQUIREMENTS - SHOWERS TRANSFER TYPE**



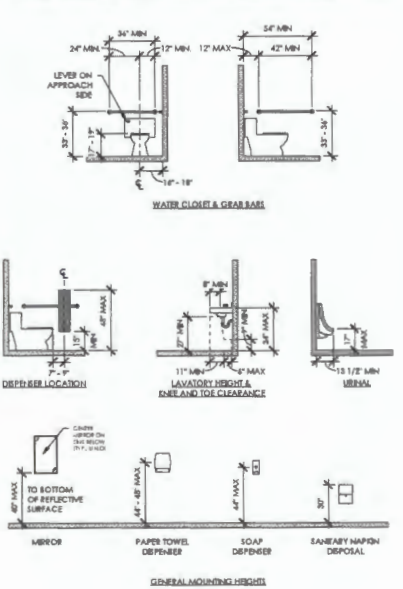
**ACCESSIBLE BATHING FACILITY REQUIREMENTS - SHOWERS ROLL-IN TYPE (WITHOUT SEAT)**



**ACCESSIBLE FINISH REQUIREMENTS**

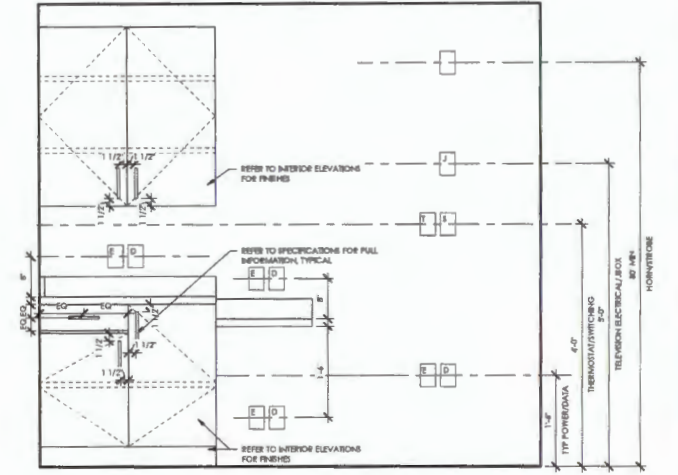


**ACCESSIBLE TOILET ROOM REQUIREMENTS**



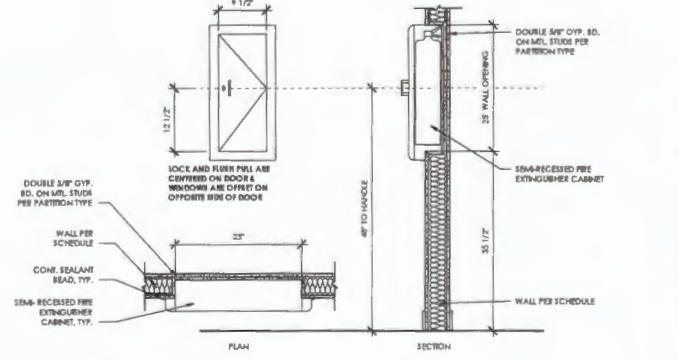
NOTE: DETAILS INCLUDED ON THIS SHEET REFLECT BASIC ACCESSIBLE FEATURES APPLICABLE TO THE PROJECT. DETAILS ARE INCLUDED FOR REFERENCE AND ARE NOT INTENDED TO CONTRAVENE FLORIDA BUILDING CODE. ACCESSIBILITY REFER TO 2023 FLORIDA BUILDING CODE, ACCESSIBILITY FOR MORE INFORMATION.

APPLICABLE CODES:  
 • 2023 FLORIDA BUILDING CODE, ACCESSIBILITY  
 • ADA 101



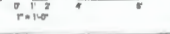
NOTES:  
 1. DETAILING IS FOR REFERENCE OF ELECTRICAL OUTLETS AND CABINET PANEL INSTALLATION.  
 2. IN APARTMENT BAY, RECEPTACLES AT 36" O.C. A.F.F.

**1 TYPICAL ELECTRICAL OUTLET & PANEL INSTALLATION**



NOTE: DIMENSIONS TO BE COORDINATED WITH FIRE EXTINGUISHER.

**2 FIRE EXTINGUISHER CABINET**



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 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**Passero Associates**

4755 GULF COAST HWY, SUITE 302  
 ST. AUGUSTINE, FL 32084  
 PROJECT NUMBER: 2023-001  
 PROJECT ARCHITECT: PASSERO ASSOCIATES

NO.	DATE	BY	DESCRIPTION

DATE PLOTTED: 11/15/2024 10:58:00 AM  
 PLOTTER: HP DesignJet T1300PS

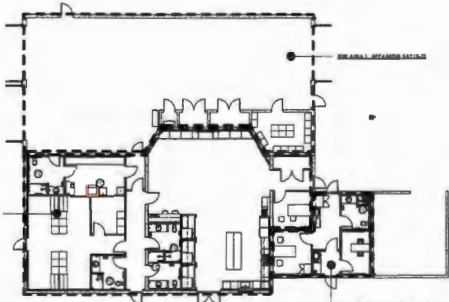
**TYPICAL ACCESSIBILITY DETAILS**  
 4630 MELANIE STREET  
 FIRE STATION #21 & SHERIFF'S OFFICE  
 TOWN/CITY: HENRY  
 COUNTY: ST. JOHN'S STATE: FLORIDA

20213261.0012

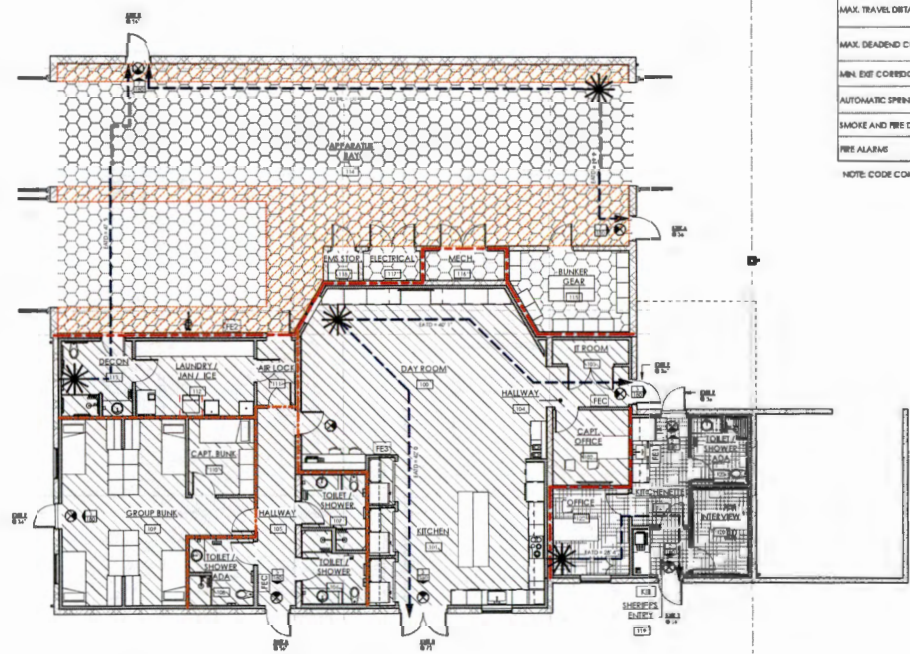
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NOVEMBER 15, 2024

**BID SET**



1 CODE KEY PLAN  
0' 11" = 1'-0"



2 CODE PLAN  
0' 2" = 1'-0"

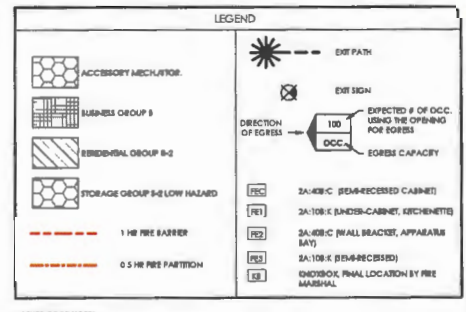
FBC - BUILDING OCCUPANCY		
AREA FIRE CODE	OCC. LOAD	
BUSINESS (SHERIFF OFFICE)		
RESIDENTIAL 200.08.05	19	
STORAGE		
FIRE GROUP	32	
TOTAL	34	

NOTE: NFPA OCCUPANCY CALCULATIONS NOT SHOWN DUE TO FBC SENSING MORE STRINGENT.

FFPC CODE REVIEW			
APPLICABLE CODES: 2023 FLORIDA BUILDING CODE, NFPA 1 2021, NFPA 101 2021			
BUILDING CODE			
OCCUPANCY CLASSIFICATION	PARAGRAPH	SEPARATED OCCUPANCY	
OCCUPANCY (BS)	SECTION 6.1	BUSINESS / RESIDENTIAL / STORAGE	
CONSTRUCTION TYPE	-	N/A	
# OF STORES/BUILDING HEIGHT		ALLOWED / PROVIDED: 1 STORY @ 28 FT	
ALLOWABLE AREA (NON-SPRINKLERED)			
ALLOWABLE AREA (SPRINKLERED)			
PROJECT AREA (TOTAL)		6,034 SF	
TOTAL NUMBER OF OCCUPANTS	TABLE 1.4.8.1.2	REFER TO BUILDING OCCUPANCY CHART	
OCCUPANCY SEPARATION (B TO B-2)	TABLE 6.1.14.4.1	1 HR	
OCCUPANCY SEPARATION (B-2 TO B-2)	TABLE 6.1.14.4.1	1 HR	
EXIT CORRIDOR (B-2)		0.5 HR	
FIRE SEPARATION DISTANCE FOR EXTERIOR WALLS		X = 30' = 0 HR RATING	
EXIT: NUMBER AND SIZE (INCHES)	NFPA 101 7.4.1.3	2	7 @ 36" / 1 @ 72"
MAX. COMMON PATH OF TRAVEL	NFPA 101 CH 12, 38, 42		NOT APPLICABLE
MAX. TRAVEL DISTANCE	NFPA 101 CH 12, 38, 42	DOBMS: 200 FT STORAGE: 400 FT BUSINESS: 300 FT	RESIDENTIAL: 30' 1" STORAGE: 41' 2" BUSINESS: 29' 4"
MAX. DEAD-END CORRIDOR	NFPA 101 CH 12, 38, 42	30 FT	NOT APPLICABLE
MIN. EXIT CORRIDOR WIDTH	NFPA 101 7.5.4.1	4'	40' MIN.
AUTOMATIC SPRINKLERS	NFPA 13		NFPA 13
SMOKE AND FIRE DETECTION		REQUIRED	PROVIDED
FIRE ALARMS		REQUIRED	PROVIDED

NOTE: CODE COMPLIANCE FOLLOWS MOST STRINGENT REQUIREMENTS

CODE REVIEW SUMMARY			
APPLICABLE CODES: 2023 FLORIDA BUILDING CODE, FLORIDA FIRE PREVENTION CODE, & FLORIDA BUILDING CODE ACCESSIBILITY 2023			
BUILDING CODE			
BUILDING USE/DESCRIPTION	FBC	FIRE STATION AND SHERIFF OFFICES	
OCCUPANCY (BS)	FBC CH. 3	BUSINESS (B) / RESIDENTIAL (B-2) / STORAGE (B-2)	
CONSTRUCTION TYPE	FBC TABLE 601	B-4	
HAZARD CLASSIFICATION	FBC TABLE 307.1	NA	
# OF STORES/BUILDING HEIGHT	FBC SEC. 304	ALLOWED: 4 STORES @ 28 FT / PROVIDED: 1 STORY @ 28 FT	
ALLOWABLE AREA (NON-SPRINKLERED)	FBC SEC. 304	RESIDENTIAL: 14,000 SF	
ALLOWABLE AREA (SPRINKLERED)	FBC SEC. 304	RESIDENTIAL: 44,000 SF	
FLOOR AREA INCREASE	FBC SEC. 304.3	NOT USED	
PROJECT AREA (TOTAL)	FBC SEC. 304	6,034 SF	
TOTAL NUMBER OF OCCUPANTS	FBC SEC. 1004	REFER TO BUILDING OCCUPANCY CHART	
OCCUPANCY SEPARATION (B TO B-2)	FBC TABLE 308.4	1 HR	
OCCUPANCY SEPARATION (B-2 TO B-2)	FBC TABLE 308.4	1 HR	
EXIT CORRIDOR (B-2)	FBC TABLE 1009.2	0.5 HR	
FIRE SEPARATION DISTANCE FOR EXTERIOR WALLS	FBC TABLE 602	X = 30' = 0 HR RATING	
EXIT: NUMBER AND SIZE (INCHES)	FBC SEC. 1005 & 1009	2 @ 36" / 7 @ 36" / 1 @ 72"	
MAX. COMMON PATH OF TRAVEL	FBC SEC. 1004 & 1009.8	BUSINESS & STORAGE: 100 FT	NOT APPLICABLE
MAX. TRAVEL DISTANCE	FBC SEC. 1017	RESIDENTIAL: 330 FT STORAGE: 400 FT BUSINESS: 300 FT	RESIDENTIAL: 30' 1" STORAGE: 41' 2" BUSINESS: 29' 4"
MAX. DEAD-END CORRIDOR	FBC SEC. 1020.4	30 FT	NOT APPLICABLE
MIN. EXIT CORRIDOR WIDTH	FBC SEC. 1005.1	4'	40' MIN.
AUTOMATIC SPRINKLERS	FBC SEC. 903	NFPA 13	NFPA 13
SMOKE AND FIRE DETECTION	FBC SEC. 907.2	REQUIRED	PROVIDED
FIRE ALARMS	FBC SEC. 907.2	REQUIRED	PROVIDED
PLUMBING CODE			
WATER CLOSET (MEN)	FBC TABLE 403.1	2	3 UN-SEX
WATER CLOSET (WOMEN)	FBC TABLE 403.1	2	2 UN-SEX
LAVATORIES	FBC TABLE 403.1	3	5 (SEE CODE NOTE 1)
SHOWERS	FBC TABLE 403.1	2	3 IS AT RESIDENTIAL, 1 AT DECON. & 1 AT SHERIFFS OFFICES
DRINKING FOUNTAINS	FBC TABLE 403.1	NOT REQUIRED	NOT PROVIDED
SERVICE SINK	FBC TABLE 403.1	1	1



OTHER CODE NOTES:  
1. FOR B-NETRY CODE INFORMATION, REFER TO A-300.

PASSERO engineering architects

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ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

Passero Associates  
100 CALHOUN AVENUE, SUITE 200  
ST. AUGUSTINE, FL 32084

NO. DATE BY DESCRIPTION

CODE SHEET

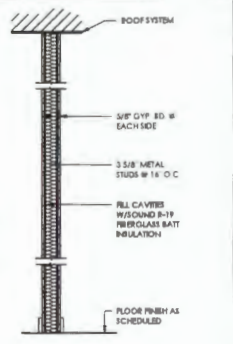
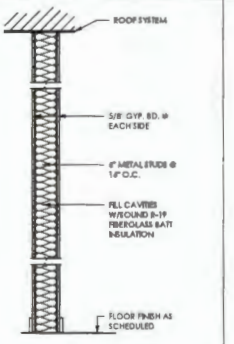
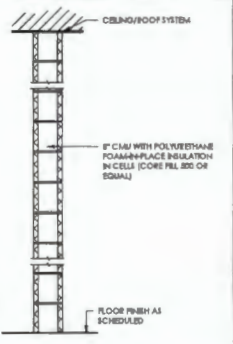
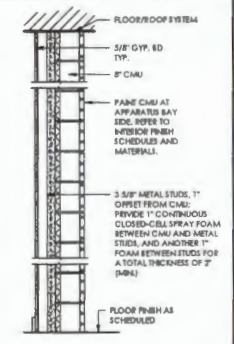
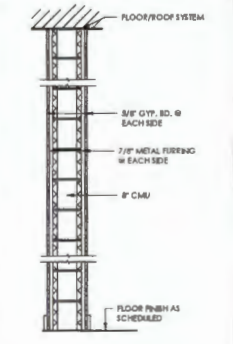
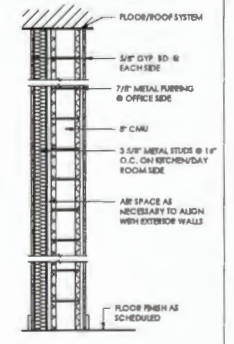
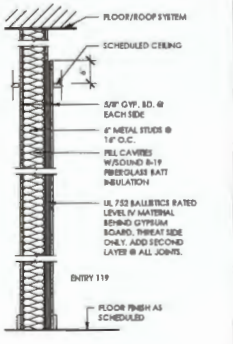
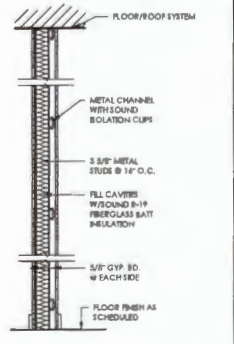
4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWNSHIP: LAWRENCE  
COUNTY: St. Johns STATE: FLORIDA

20213261.0012

G-003

NOVEMBER 15, 2024

BID SET

WALL TYPES SCHEDULE			
 <p>ROOF SYSTEM</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>3 5/8" METAL STUDS @ 14" O.C.</p> <p>FILL CAVITIES W/ SOUND B-19 FIBERGLASS BATT INSULATION</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>ROOF SYSTEM</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>2" METAL STUDS @ 14" O.C.</p> <p>FILL CAVITIES W/ SOUND B-19 FIBERGLASS BATT INSULATION</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>CEILING/ROOF SYSTEM</p> <p>2" CMU WITH POLYURETHANE FOAM-IN-PLACE INSULATION IN CELLS (CORE PILL. SEC. OR SOLMA)</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>FLOOR/ROOF SYSTEM</p> <p>5/8" GYP. BD. TYP.</p> <p>2" CMU</p> <p>FACE CMU AT APPARATUS BAY SIDE. REFER TO INTERIOR FINISH SCHEDULES AND MATERIALS.</p> <p>3 5/8" METAL STUDS, 1" OFFSET FROM CMU; PROVIDE 1" CONTINGUOUS CLOSED-CELL SPRAY FOAM BETWEEN CMU AND METAL STUDS AND ANOTHER 1" FOAM BETWEEN STUDS FOR A TOTAL THICKNESS OF 2" (MIN).</p> <p>FLOOR FINISH AS SCHEDULED</p>
<p><b>A</b> 3 5/8" METAL STUD W/ GYP. BOTH SIDES</p> <p><b>A1</b> 5/8" TO "A" - 1 HR RATED FIRE BARRIER (UL DESIGN U419)</p> <p><b>A2</b> 5/8" TO "A" - 0.5 HR RATED FIRE PARTITION (UL DESIGN U419)</p>	<p><b>B</b> 2" METAL STUD W/ GYP. BOTH SIDES</p> <p><b>B1</b> 5/8" TO "B" - 0.5 HR RATED FIRE PARTITION (UL DESIGN U419)</p>	<p><b>C</b> INTERIOR MASONRY WALL (TYPICAL AT APPARATUS SUPPORT SPACES - TERMINATES AT COMPOSITE METAL DECKING)</p> <p><b>C1</b> 5/8" TO "C" - 1 HR RATED FIRE BARRIER</p>	<p><b>D</b> INTERIOR MASONRY WALL W/ 3 5/8" METAL STUD W/ GYP. ONE SIDE - 1 HR RATED FIRE BARRIER (UL DESIGN U419)</p>
 <p>FLOOR/ROOF SYSTEM</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>7/8" METAL FURRING @ EACH SIDE</p> <p>2" CMU</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>FLOOR/ROOF SYSTEM</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>7/8" METAL FURRING @ OFFICE SIDE</p> <p>2" CMU</p> <p>3 5/8" METAL STUDS @ 14" O.C. ON RECREATION DAY ROOM SIDE</p> <p>AIR SPACE AS NECESSARY TO ALIGN WITH EXTERIOR WALLS</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>FLOOR/ROOF SYSTEM</p> <p>SCHEDULED CEILING</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>2" METAL STUDS @ 14" O.C.</p> <p>3 5/8" METAL STUDS @ 14" O.C. ON RECREATION DAY ROOM SIDE</p> <p>FILL CAVITIES W/ SOUND B-19 FIBERGLASS BATT INSULATION</p> <p>UL 752 BALLISTIC RATED LEVEL IV MATERIAL BEHIND GYPSUM BOARD, THREAT SIDE ONE T. ADD SECOND LAYER @ ALL JOINTS.</p> <p>ENTRY 119</p> <p>FLOOR FINISH AS SCHEDULED</p>	 <p>FLOOR/ROOF SYSTEM</p> <p>METAL CHANNEL WITH SOUND INSULATION CLIPS</p> <p>3 5/8" METAL STUDS @ 14" O.C.</p> <p>FILL CAVITIES W/ SOUND B-19 FIBERGLASS BATT INSULATION</p> <p>5/8" GYP. BD. @ EACH SIDE</p> <p>FLOOR FINISH AS SCHEDULED</p>
<p><b>E</b> NON-RATED INTERIOR MASONRY WALL W/ 7/8" FURRING BOTH SIDES</p> <p><b>E1</b> INTERIOR MASONRY WALL W/ 7/8" FURRING BOTH SIDES - 0.5 HR FIRE BARRIER (UL DESIGN U419)</p>	<p><b>F</b> INTERIOR MASONRY WALL W/ 7/8" FURRING ON ONE SIDE &amp; 3 5/8" METAL STUD ON OTHER SIDE - 1HR RATED BARRIER (UL DESIGN U419)</p>	<p><b>G</b> 2" BALLISTIC RATED PARTITION (UL DESIGN 752 - BALLISTIC RATED LEVEL IV PROTECTION)</p>	<p><b>H</b> NON-RATED FULL HEIGHT PARTITION - 5/8" GYP. BD. @ EACH SIDE</p>

- WALL TYPE NOTES:**
1. PROVIDE MOISTURE RESISTANT DWR IN ALL WET AREAS.
  2. FINAL STUD GAUGE AND SIZE BY METAL STUD SUPPLIER.
  3. AT FIRE PARTITIONS AND BARRIERS PROVIDE REBATTING, TOP AND BOTTOM AND AT ALL PENETRATIONS.
  4. ALL WALL BARS ARE AS SCHEDULED.
  5. SEALANT TO BE AT EACH SIDE OF THE BASE OF WALL.

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4750 CALA COLA HWY., SUITE 303  
ST. AUGUSTINE, FL 32084

NO.	DATE	BY	DESCRIPTION

WALL TYPES

**WALL TYPES**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWN/CITY: Hastings COUNTY: St. Johns STATE: Florida

20213261.0012

G-004

**BID SET**

NOVEMBER 15, 2024

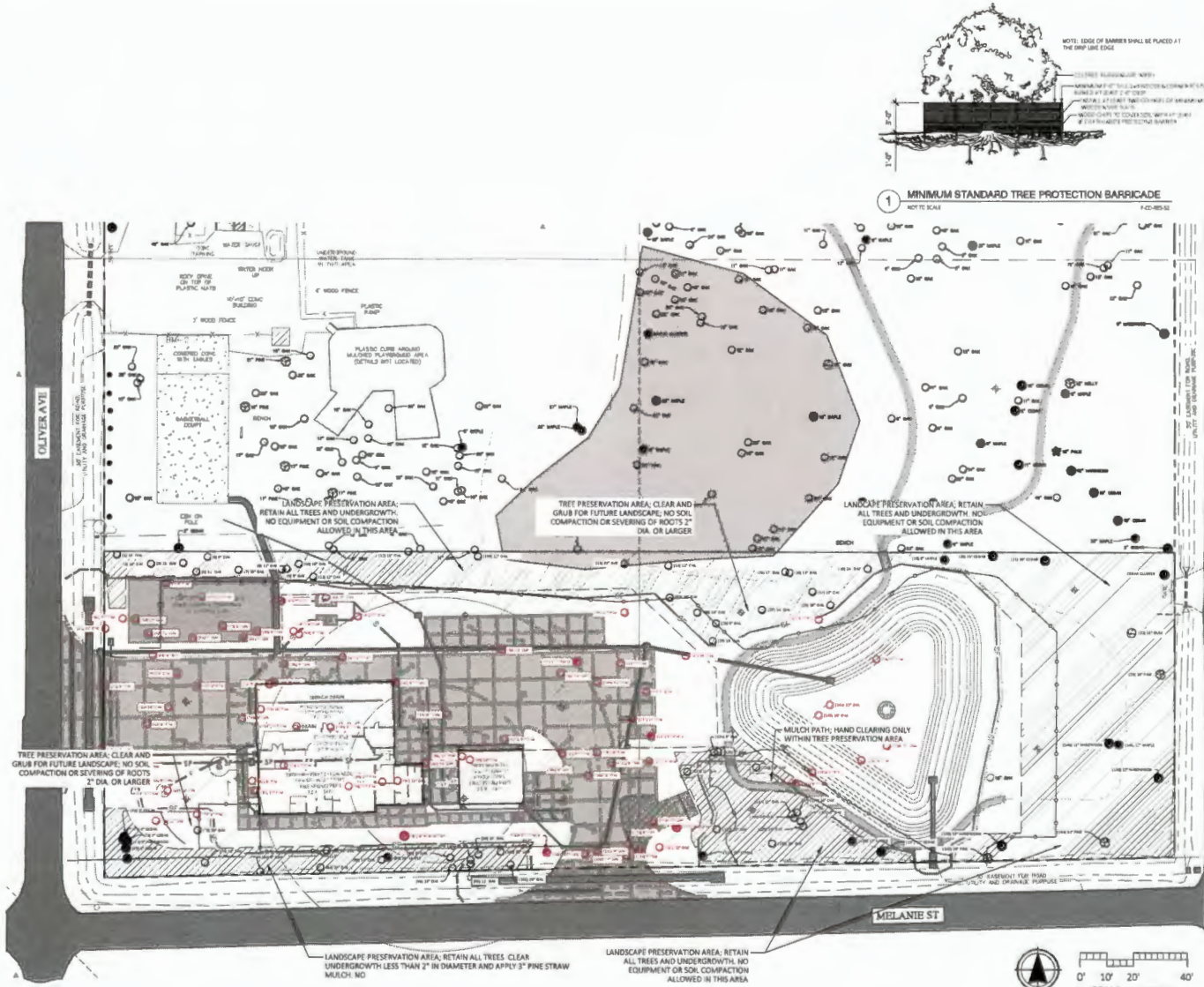


**TREES PRESERVED**

Tree #	DBH	Species
1	10	OAK
2	10	OAK
3	15	OAK
5	31	OAK
6	8	OAK
7	10	OAK
8	11	OAK
9	8	OAK
10	16	OAK
11	12	OAK
12	15	OAK
13	27	OAK
14	12	OAK
15	17	OAK
16	13	OAK
17	13	OAK
18	24	OAK
19	8	MAPLE
20	15	CEDAR
21	16	CEDAR
22	16	GRM
23	15	PINE
25	16	OAK
27	14	OAK
28	8	OAK
29	18	OAK
30	14	OAK
32	10	OAK
70	2	CEDAR
71	4	CEDAR
72	3	CEDAR
74	3	HARDWOOD
75	2	CEDAR
76	8	HARDWOOD
78	29	OAK
79	10	OAK
80	9	OAK
84	23	OAK
85	15	OAK
86	14	OAK
87	30	MAPLE
89	9	OAK
93	16	OAK
94	11	OAK
95	12	OAK
96	10	OAK
100	29	OAK
101	27	OAK
121	30	OAK
122	13	OAK
123	22	MAPLE
124	9	OAK
125	18	OAK
126	13	OAK
127	11	OAK
128	14	OAK
129	14	OAK
130	10	OAK
131	9	OAK
132	10	OAK
135	13	MAPLE
137	11	CEDAR
142	19	HARDWOOD
143	29	PINE
144	24	PINE
145	11	HARDWOOD
145	17	MAPLE
146	12	HARDWOOD
TOTAL	949	

**TREES REMOVED**

Tree #	DBH	Species
4	8	OAK
24	18	OAK
31	10	OAK
33	9	OAK
34	9	OAK
35	12	OAK
36	12	OAK
37	13	MAPLE
38	22	OAK
39	30	OAK
40	9	MAPLE
41	52	OAK
42	27	OAK
43	15	OAK
44	8	OAK
45	18	OAK
46	9	OAK
47	8	OAK
48	8	OAK
49	8	OAK
50	9	OAK
51	16	OAK
52	9	OAK
53	8	OAK
54	8	OAK
55	8	OAK
56	8	OAK
57	11	OAK
58	19	OAK
59	9	OAK
60	10	OAK
61	11	OAK
62	10	OAK
63	9	OAK
64	8	OAK
65	11	OAK
66	9	OAK
67	15	OAK
68	8	OAK
69	10	OAK
72	11	OAK
77	8	OAK
81	10	OAK
82	8	OAK
83	11	OAK
88	31	OAK
89	10	OAK
90	15	OAK
91	14	OAK
92	9	HARDWOOD
97	14	OAK
98	11	OAK
99	14	OAK
102	13	MAPLE
103	23	OAK
104	9	OAK
105	8	NOT USED
106	8	OAK
107	27	OAK
108	14	OAK
109	8	OAK
110	9	OAK
111	9	OAK
112	8	OAK
113	8	OAK
114	9	OAK
115	11	OAK
116	9	OAK
117	8	MAPLE
118	21	OAK
119	12	OAK
120	9	MAPLE
134	9	OAK
138	12	OAK
139	11	OAK
140	10	OAK
141	10	OAK
147	12	OAK
148	8	OAK
149	11	OAK
TOTAL	976	



Prepared for:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

AMERICAN PROJECT OF RECORD  
Project Location: 4830 MELANIE ST  
ML+H PROJECT # 24-13-D



**Passero Associates**  
Principal-in-Charge: Andrew Roberts  
Project Manager: STAN PRICE  
Civil Engineer: STAN PRICE  
Designed by: JOHN LUE

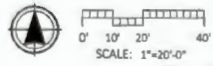
Drawing Title:  
**TREE  
MITIGATION  
PLAN**

Project Location:  
**4830 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

Project No.:  
**20203281.0012**

Drawing No.:  
**L-1.1**

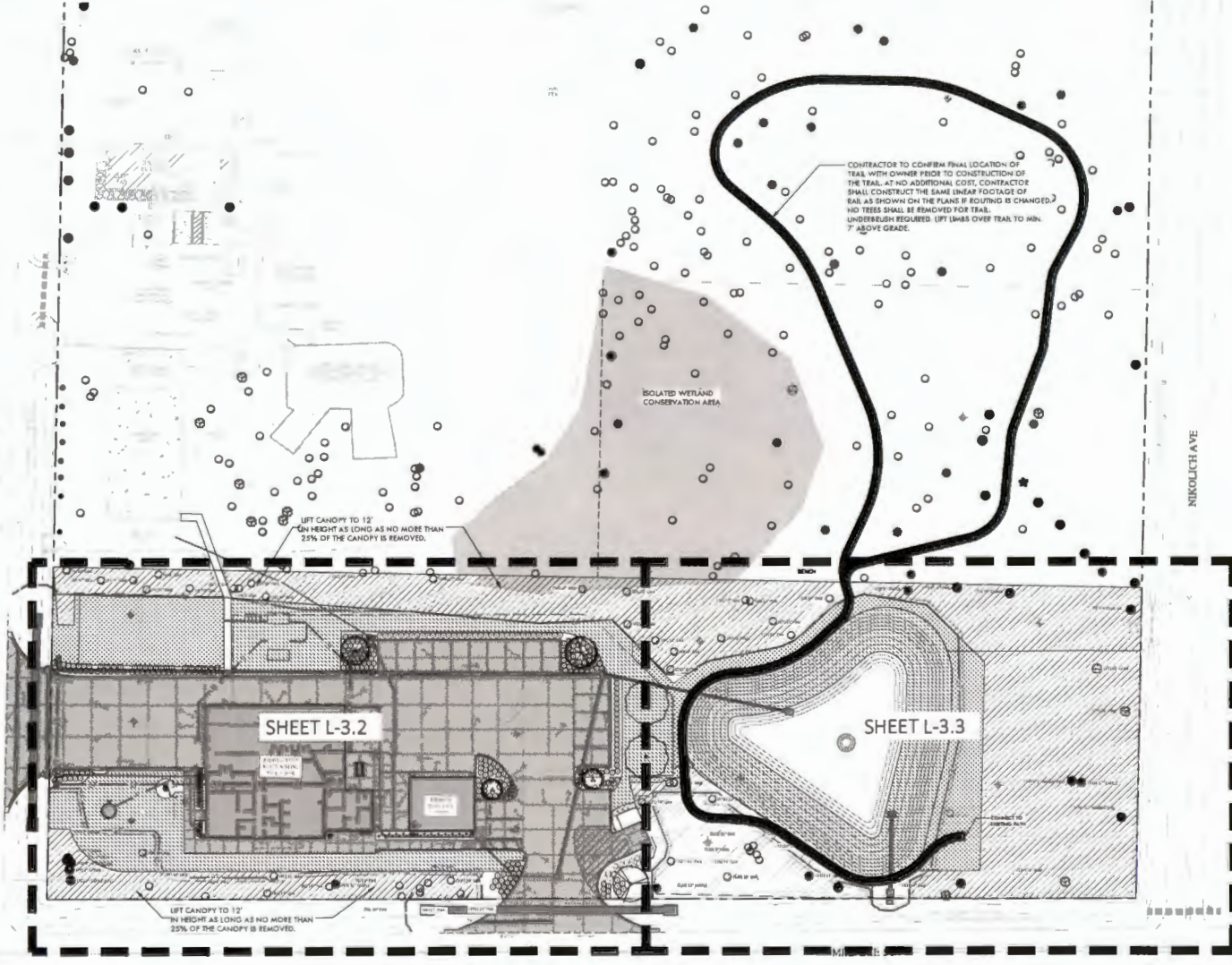
Date:  
**NOVEMBER 15, 2024**



**BID SET**

TREES PRESERVED		
Tree #	DBH	Species
1	10	OAK
2	10	OAK
3	15	OAK
5	31	OAK
6	8	OAK
7	10	OAK
8	11	OAK
9	8	OAK
10	16	OAK
11	12	OAK
12	15	OAK
13	22	OAK
14	12	OAK
15	17	OAK
16	13	OAK
17	13	OAK
18	24	OAK
19	8	MAPLE
20	15	CEDAR
21	16	CEDAR
22	16	GUM
23	16	PINE
25	16	OAK
27	14	OAK
28	8	OAK
29	18	OAK
30	14	OAK
32	10	OAK
70	2	CEDAR
71	4	CEDAR
73	3	CEDAR
74	9	HARDWOOD
75	2	CEDAR
76	8	HARDWOOD
78	29	OAK
79	10	OAK
80	9	OAK
84	23	OAK
85	15	OAK
86	14	OAK
87	30	MAPLE
88	9	OAK
89	16	OAK
94	11	OAK
95	12	OAK
96	10	OAK
100	29	OAK
101	29	OAK
121	10	OAK
122	13	OAK
123	22	MAPLE
124	9	OAK
125	18	OAK
126	13	OAK
127	11	OAK
128	14	OAK
129	14	OAK
130	10	OAK
131	9	OAK
132	10	OAK
135	13	MAPLE
137	11	CEDAR
142	19	HARDWOOD
143	19	PINE
144	24	PINE
145	11	HARDWOOD
146	17	MAPLE
146	12	HARDWOOD
TOTAL	985	

TREES REMOVED		
Tree #	DBH	Species
4	8	OAK
24	18	OAK
25	15	OAK
33	10	OAK
33	9	OAK
34	9	OAK
35	12	OAK
36	12	OAK
37	13	MAPLE
38	22	OAK
39	30	OAK
40	9	MAPLE
43	52	OAK
42	27	OAK
43	15	OAK
44	8	OAK
45	18	OAK
46	9	OAK
47	8	OAK
48	8	OAK
49	8	OAK
50	9	OAK
51	16	OAK
52	9	OAK
53	8	OAK
54	8	OAK
55	8	OAK
56	8	OAK
57	11	OAK
58	19	OAK
59	9	OAK
60	10	OAK
61	11	OAK
62	10	OAK
63	9	OAK
64	8	OAK
65	11	OAK
66	9	OAK
67	15	OAK
68	8	OAK
69	10	OAK
72	11	OAK
77	8	OAK
81	10	OAK
82	8	OAK
83	11	OAK
85	11	OAK
86	11	OAK
89	10	OAK
90	15	OAK
91	9	HARDWOOD
97	14	OAK
98	11	OAK
99	14	OAK
102	13	MAPLE
103	23	OAK
104	9	OAK
105		# NOT LISTED
106	8	OAK
107	27	OAK
108	14	OAK
109	8	OAK
110	9	OAK
111	9	OAK
112	8	OAK
113	8	OAK
114	9	OAK
115	11	OAK
116	9	OAK
117	8	MAPLE
118	23	OAK
119	12	OAK
133	9	MAPLE
134	9	OAK
136	12	OAK
139	11	OAK
140	10	OAK
141	10	OAK
147	12	OAK
148	8	OAK
149	11	OAK
TOTAL	876	



Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

LANDSCAPE ARCHITECT OF RECORD  
11 FLEMING LANE, SUITE 2100  
MILWAUKEE, WI 53219



**Passero Associates**  
Principal-in-Charge: Andrew Melatta  
Project Manager: STAN PRICE  
Civil Engineer: STAN PRICE  
Designed by: JOHN LUZ

### LANDSCAPE PLAN

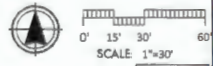
Project Location:  
**4530 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

ST. JOHNS COUNTY, FLORIDA

Project No.: **20203261.0012**

Drawing No.: **L-3.1**

Date: **NOVEMBER 15, 2024**



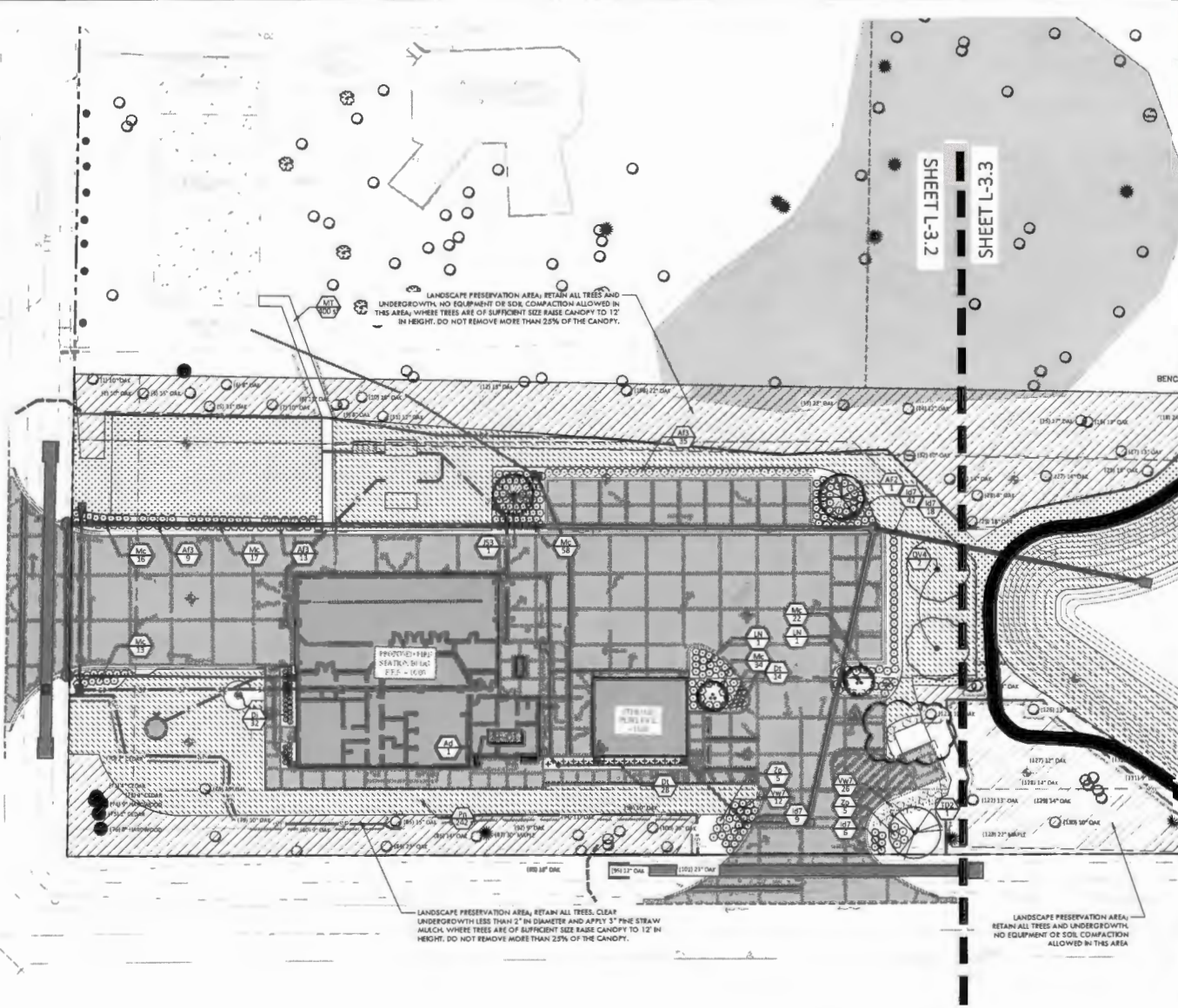
**BID SET**

Monday, November 18, 2024

**PLANT SCHEDULE**

SYMBOL	BOTANICAL / COMMON NAME
<b>TREES</b>	
	ACER RUBRUM 'FLORIDA FLAME' / FLORIDA FLAME RED MAPLE
	JUNIPERUS SPICICOLA / SOUTHERN RED CEDAR
	LAGERSTROEMIA INDICA 'FAUREI' 'WATCHEZ' / WATCHEZ CRAPE MYRTLE
	QUERCUS VIRGINIANA / SOUTHERN LIVE OAK
	TAXODIUM DISTICHUM / BALD CYPRESS
<b>SHRUBS</b>	
	AZALEA INDICA 'FORMOSA' / FORMOSA AZALEA
	DIANELLA TASMANICA / FLAX LILY
	DIETES IRIDIODES / FORTNIGHT LILY
	ILEX VOMITORIA 'SCHILLINGS DWARF' / SCHILLINGS DWARF YALPON HOLLY
	MAULENBERGIA CAPILLARIS / PINK MUHLY
	VIBURNUM OBOVATUM 'WITHACODOCHE' / WITHACODOCHE WALTERS VIBURNUM
	ZAMIA FLUMINA / COONTIE
<b>GROUND COVERS</b>	
	PASPALLUM NOTATUM / BAHIA GRASS HYDROSEED
	PASPALLUM NOTATUM / BAHIA GRASS SOD
	PINE STRAW MULCH / PINE STRAW MULCH
<b>AGGREGATE</b>	
	REROUTED MULCH TRAIL MATCH EXISTING MULCH

CODE	DESCRIPTION
<b>SITE FURNITURE SCHEDULE</b>	
	TRIANGULAR PLANTER
	PROVIDE SAMPLE FOR APPROVAL



**PASSERO**  
engineering architecture



Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

LANDSCAPE ARCHITECT OF RECORD  
7700 W. LANTANA LANE, SUITE 200  
MELBOURNE, FLORIDA 32909  
MELH PROJECT # 24-130



**Passero Associate,**  
Landscape Architecture  
Principal in Charge: Andrew Miller, P.E.  
Project Manager: STEAN PRICE  
Civil Engineer: STEAN PRICE  
Designer: JOHN LUCE

Revisions	
No.	Description

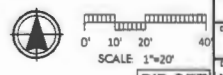
**LANDSCAPE  
ENLARGEMENT**

Project Location:  
**4830 MELANIE STREET  
SLC - FLAGLER ESTATE;  
FIRE STATION**  
ST. JOHNS COUNTY, FLORIDA

Project No.:  
**20203261.0012**

Drawing No.:  
**L-3.2**

Date:  
**NOVEMBER 15, 2024**

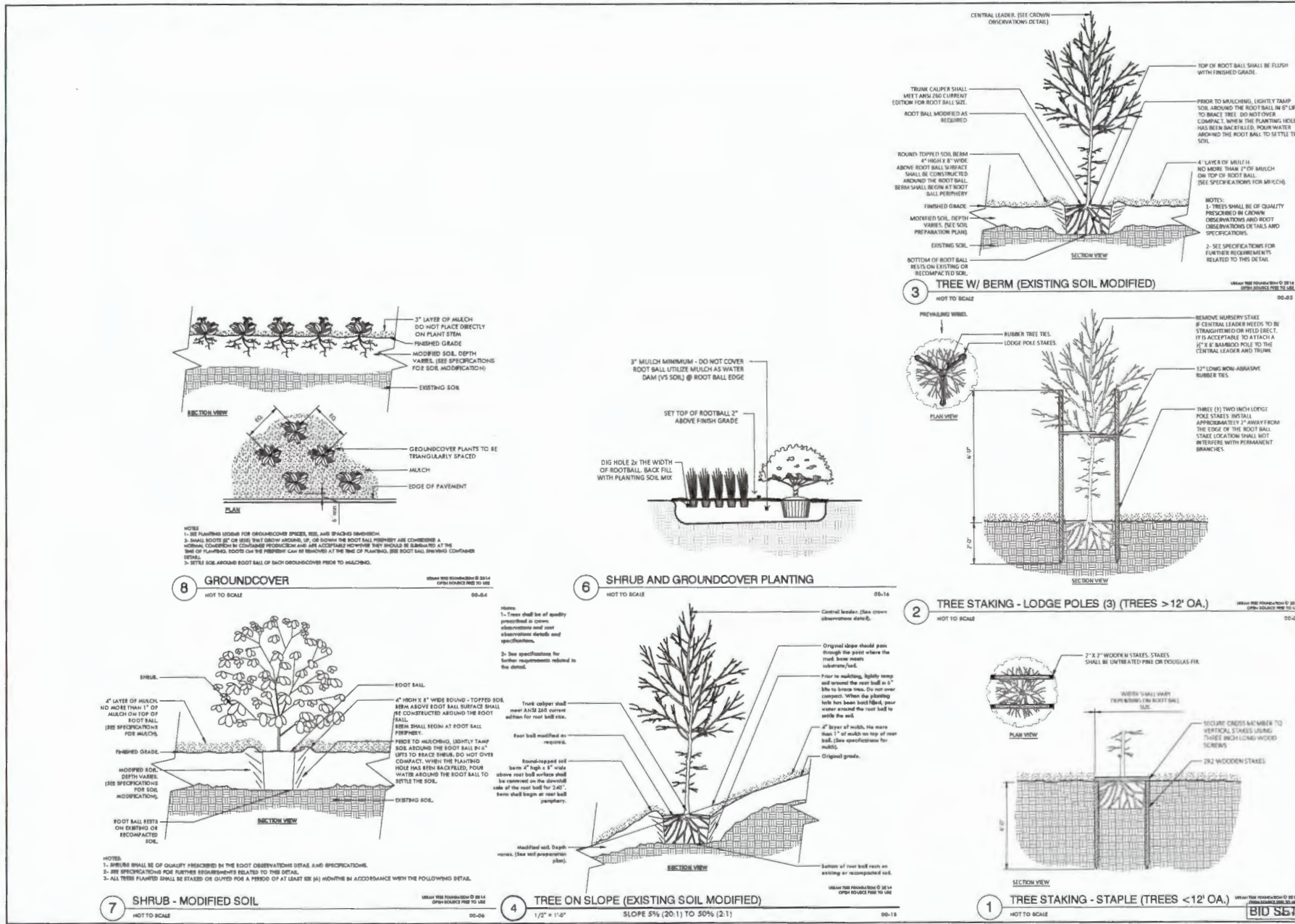


**BID SET**

C:\Users\jluce\OneDrive\Documents\Projects - Miller\MLH\4830 Melanie St\Projects - Miller\2024\Projects\2024\SLC Fire Station\2024\SLC Fire Station\2024\SLC Fire Station.dwg







**PASSERO**  
engineering architecture

**ML+H**

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:

LANDSCAPE ARCHITECT OF RECORD  
ST. JOHNS COUNTY, FLORIDA  
ML+H PROJECT # 24 13 D

Client: **ST. JOHNS COUNTY**  
2024

**Passero Associates**  
24024 Fire Station  
Project Manager: Andrew Ingolia  
Civil Engineer: STAN PRICCE  
Designed by: JOHN LAKE

Prepared:

**LANDSCAPE  
DETAILS**

Project Location:  
**4830 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**  
HASTINGS  
COUNTY, FLORIDA

Project No.: **20203261.0012**

Drawing No.: **L-3.5**

Date: **NOVEMBER 15, 2024**

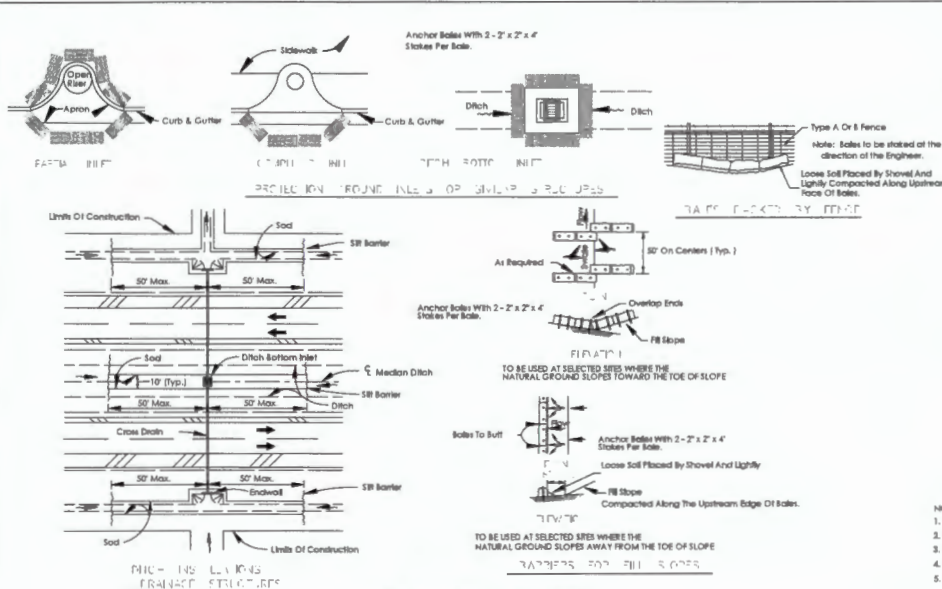
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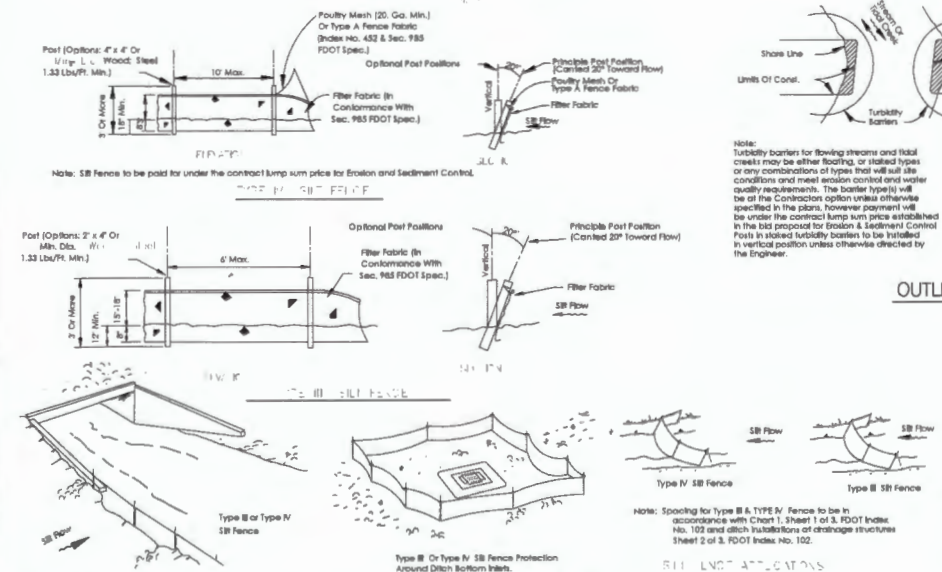




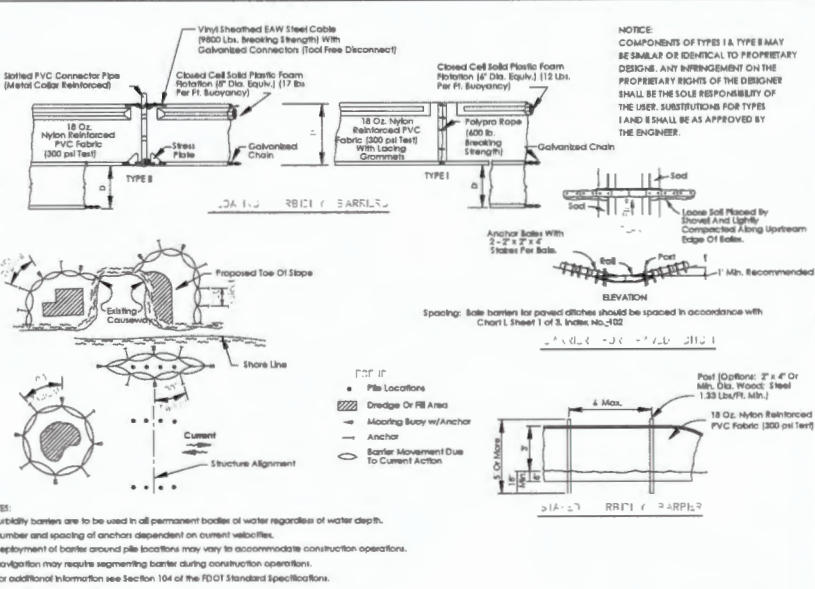




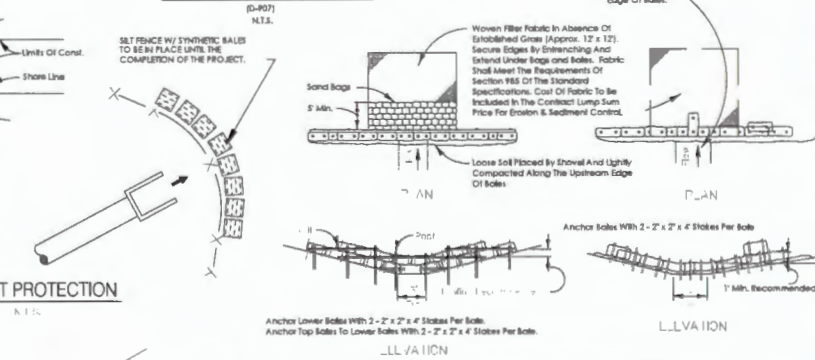
**SYNTHETIC BALE LOCATION**



**SILT FENCE TYPE III & IV**



**TURBIDITY BARRIERS**



**NOTE:** WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO THE FDOT ROADWAY & TRAFFIC DESIGN STANDARDS AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION LATEST EDITION.



Prepared For:  
**ST. JOHNS COUNTY FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**

Principal-In-Charge: Andrew Helms  
Project Manager: M. SPOFFORD  
Civil Engineer: J. LURE

Revisions	
No.	Description

Drawing Title:  
**SWPP PLAN**

Project Location:  
**4630 MELANIE STREET SLC - FLAGLER ESTATES FIRE STATION**

Sheet No:  
**20213261.0012**

Drawing No.:  
**C-004**

Date:  
**November 15, 2024**

BID SET



ENGINEER'S NOTE: THIS DRAWING IS A REPRODUCTION OF THE TOPOGRAPHIC SURVEY DESCRIBED BELOW

FLAGLER ESTATES PARK  
DATE OF ORIGINAL FIELD SURVEY: APRIL 12, 2023



THIS DRAWING MEETS THE REQUIREMENTS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS, CHAPTER 49-17, F.A.C. PURSUANT TO THE FLORIDA STATUTES WHICH APPLY TO ALL SURVEYS AND INSTRUMENTS UNDER RECORD.

ST. JOHNS COUNTY LAND MANAGEMENT SYSTEMS  
SURVEYING AND MAPPING DIVISION

500 SAN SEBASTIAN VIEW  
ST AUGUSTINE, FLORIDA 32084

DONALD A. BRADSHAW P.S.M. NO. 6513  
Phone (904) 209-0770 Email: dbradshaw@sjcf.us

MAP SHOWING A TOPOGRAPHIC SURVEY OF FLAGLER ESTATES PARK  
LYING IN SECTION 2, TOWNSHIP 10 SOUTH, RANGE 28 EAST,  
ST. JOHNS COUNTY, FLORIDA  
FOR: ST. JOHNS COUNTY PARKS AND RECREATION DEPARTMENT

SURVEYOR'S NOTES:

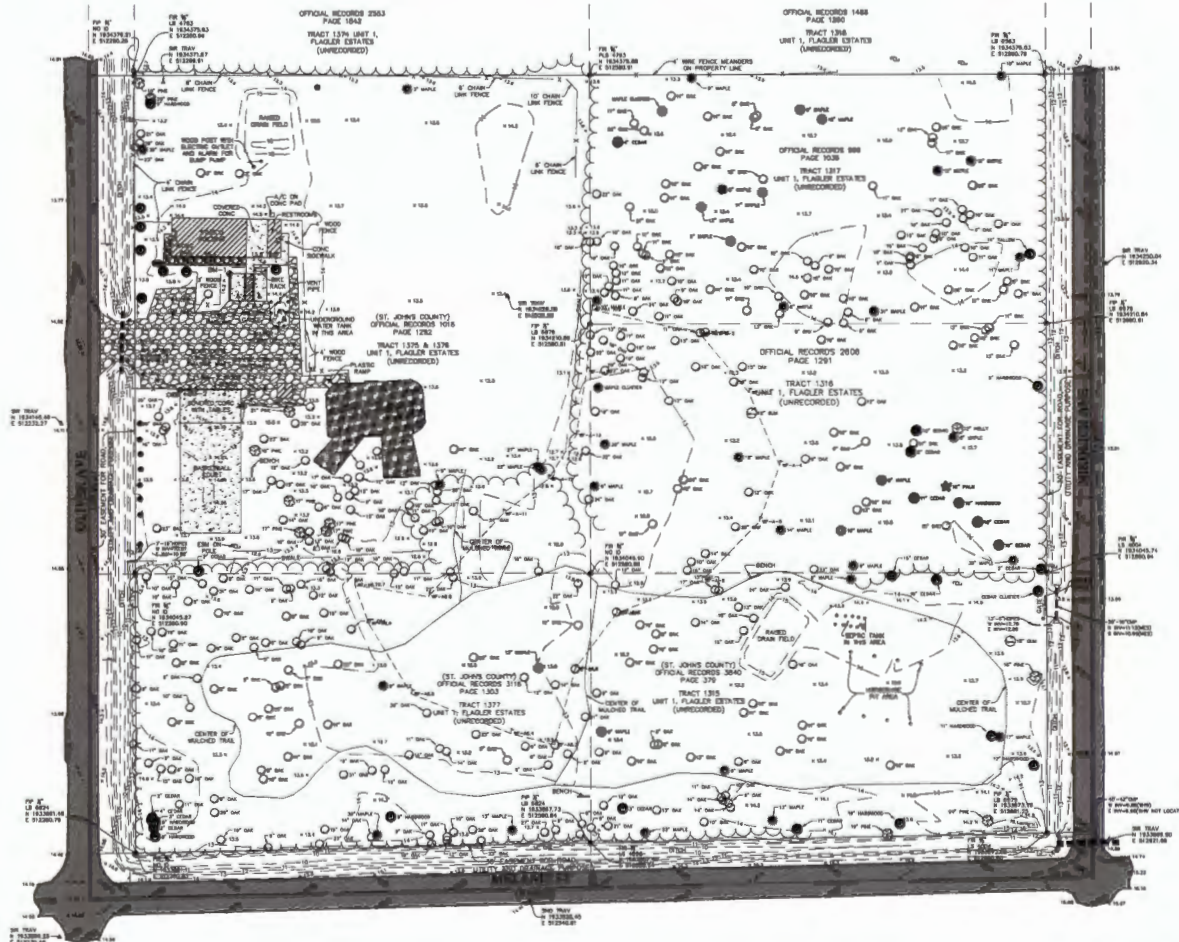
1. THIS IS NOT A BOUNDARY SURVEY. PROPERTY AND RIGHT OF WAY LINES SHOWN HEREON ARE APPROXIMATE ONLY AND DO NOT CONSTITUTE OWNERSHIP.
2. NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
3. NO UNDERGROUND UTILITIES, INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED, EXCEPT AS SHOWN.
4. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED THIS SURVEYOR, EXCEPT AS SHOWN.
5. BEARING DATUM BASED ON STATE PLANE COORDINATES, FLORIDA EAST ZONE, IN UNITS OF US SURVEY FEET, REFERENCE TO THE MAD 83/2011. ST. JOHNS COUNTY GEODETIC NETWORK CONTROL POINTS 13-16 AND 13-17 BEARING 55°28'24" E.
6. THIS IS A TOPOGRAPHIC SURVEY.
7. THE ACCURACY OF THIS SURVEY IS PREMISED ON THE EXPECTED USE OF THE SURVEY. THE EXPECTED USE/PURPOSE OF THIS SURVEY IS TOPOGRAPHIC FOR FUTURE DESIGN.
8. PIPE SIZE, MATERIAL AND INVERTS ARE AS BEST ASCERTAINED DUE TO FIELD CONDITIONS.
9. THE HORIZONTAL POSITION OF THE DIRT TRAIL SHOWN ON THIS SURVEY WAS DERIVED USING RESOURCE GRADE GPS EQUIPMENT.
10. ELEVATIONS BASED ON NAVD 83, US SURVEY FEET, IF ANY.
11. BENCHMARK BASIS: MGS PUBLISHED BENCHMARK M 480 ELEVATION = 19.43 FEET.
12. THE INTENDED FEATURES LOCATED AND SHOWN ON THIS SURVEY ARE ALL THOSE WITH ABOVE GROUND INDICATORS.
13. THE PROPERTY LINES AND RIGHT OF WAYS SHOWN ON THIS SURVEY ARE BASED ON PLATS, ADJOINING DEEDS AND LOCALLY ACCEPTED FIELD MONUMENTATION.
14. AERIAL PHOTOGRAPHY, IF SHOWN, WAS OBTAINED IN FEBRUARY 2021.

**BENCHMARK 1**  
X-CUT SET IN THE NORTHWEST CORNER OF A CONCRETE PAD FOR HANDICAP PARKING, 8.0 FEET EAST FROM THE END OF A 3 FOOT WOOD FENCE, 11.2 FEET SOUTH FROM THE SOUTH FACE OF A 3 FOOT BURNING, 17.3 FEET WEST FROM THE WEST END OF A METAL BIKE RACK.  
ELEVATION = 14.86 (NAVD 83 FEET)

**BENCHMARK 2**  
X-CUT SET IN THE NORTHWEST CORNER OF A CONCRETE PAD WITH PAVEMENT TABLES, 31.4 FEET SOUTH FROM THE CENTERLINE OF A WOOD DRIVE ENTRANCE TO FLAGLER ESTATES PARK, 5.7 FEET NORTHWEST FROM A METAL POLE FOR A PARKING, 2.5 FEET EAST FROM A CONCRETE LIGHT POLE.  
ELEVATION = 14.07 (NAVD 83 FEET)

LEGEND

- |                                   |   |
|-----------------------------------|---|
| ● BENCHMARK/VERTICAL CONTROL      | ● WHITE CLOUTER (UNLESS OTHERWISE NOTED)          |
| x 1/8" ELEVATION SHOT             | ○ HORIZONTAL CONTROL/PANORAMIC POINT              |
| ○ WOOD UTILITY POLE               | ○ PP POUND IRON PIPE SIZE AND "D"                 |
| ○ WOOD UTILITY POLE WITH GUY WIRE | ○ PB POUND IRON ROD SIZE AND "D"                  |
| ○ CONCRETE LIGHT POLE             | EM ELECTRIC SERVICE METER                         |
| ○ ELECTRIC BOX                    | SB 1/2" BUSH ROD WITH RED CAP "PLC TRAY"          |
| ○ VERIFICATION CONTROL VALVE      | SBH SET MET. & DISH "PLC TRAY"                    |
| ○ BELL                            | CONC CONCRETE                                     |
| ○ BMT-B-GLE                       | AVC AIR CONDITIONER                               |
| ○ BUSH OR METAL POST              | INV INVERT  |
| ○ BUSH (DOUBLE POST)              | MES METEORIC IRON SECTION (METAL CHLOR TREATMENT) |
| ○ BUSH (DOUBLE POST)              | CM CORRUGATED METAL PIPE                          |
| ○ C-UT METEORIC PIPE              | HPER CORRUGATED PLASTIC PIPE (SMOOTH INSIDE)      |
| ○ HANDICAP PARKING                | SWP SANDWICH MEMORIAL                             |
| ○ DRIVE                           | TL TREE LINE                                      |



**PASSERO**  
engineering architecture

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:



Client:



**Passero Associates**

Principal-in-Charge: Andrew Holbert  
Project Manager: M. BRADSHAW  
Civil Engineer: M. BRADSHAW  
Designed by: J. LEE

Drawing Title:  
**TOPOGRAPHIC  
SITE SURVEY**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

ST. JOHNS COUNTY, FLORIDA

Project No. 20213281.0012

Drawing No. **C-100**

Date: **November 15, 2024**

BID SET

NOTE: PER GEOTECHNICAL ENGINEER'S RECOMMENDATION, A VERTICAL SEPARATION OF 2' BETWEEN THE TOP OF SC TYPE SOILS AND THE BOTTOM OF CONCRETE FOUNDATIONS/PAVEMENT SHALL BE MAINTAINED. OVEREXCAVATION SHALL BE REQUIRED WHERE NEEDED TO PROVIDE THIS SEPARATION; OVEREXCAVATED AREAS SHALL BE FILLED WITH STRUCTURAL FILL OR NO. 57 STONE. SC AND CH TYPE CLAY SOILS SHALL NOT BE USED AS FILL WITHIN TOP 1' FROM FINISHED GRADE WITHIN GREEN AREAS. THE USE OF SOILS EXCAVATED FROM THE PROPOSED POND AREA OR ELSEWHERE ON SITE SHALL MEET THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. SEE THE GEOTECHNICAL REPORT FOR FURTHER DETAILED INFORMATION AND REQUIREMENTS.

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**

Principal-in-Charge: Andrew Hubert  
Project Manager: M. BRODSKY  
Civil Engineer: M. BRODSKY  
Designed by: J. LUIE

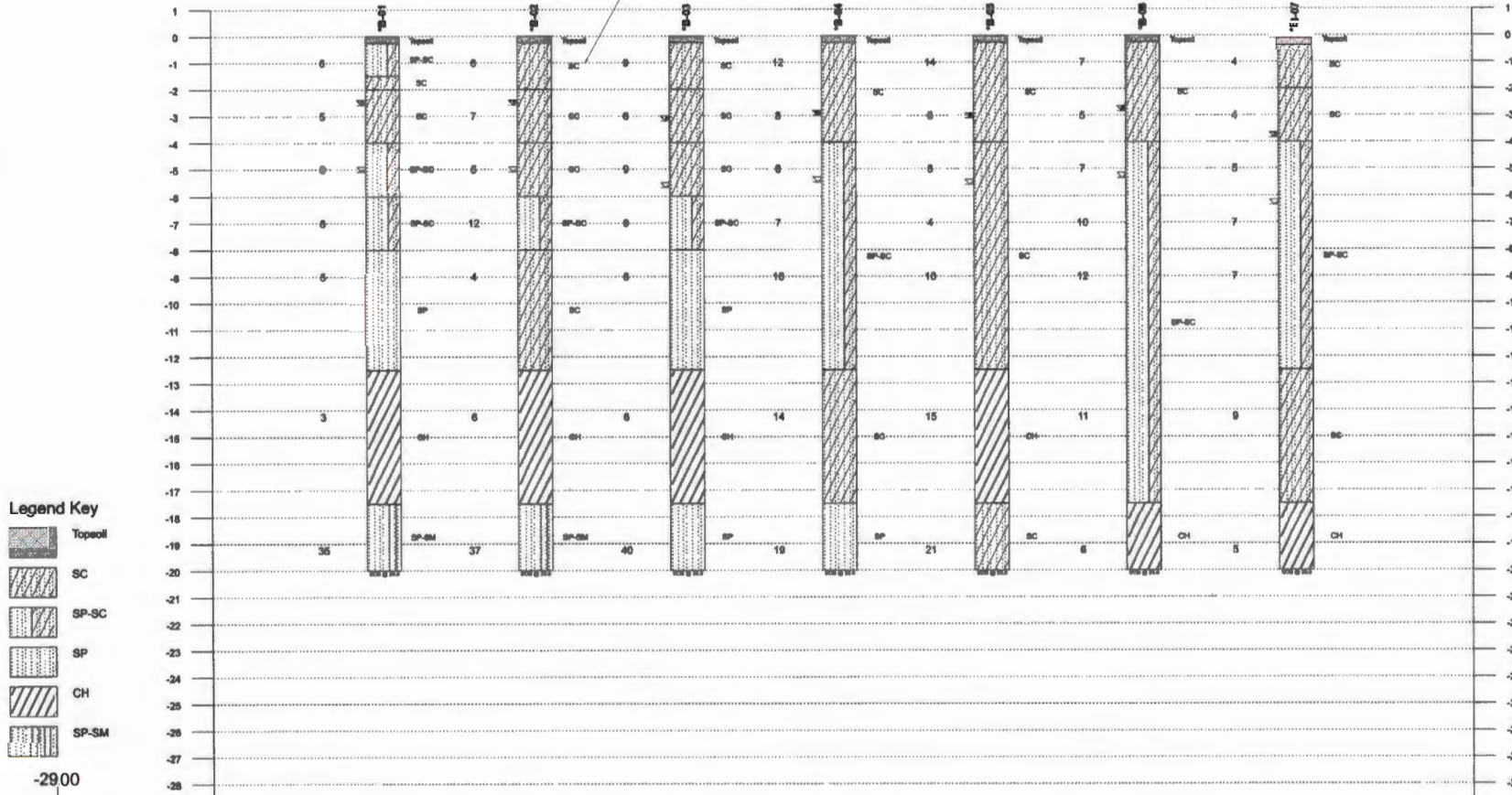
**GEOTECHNICAL  
BORING LOG**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATE;  
FIRE STATION  
ST. JOHNS COUNTY, FLORIDA

Project No.:  
20213261.0012

Drawing No.:  
C-101

Date:  
November 15, 2024



**Legend Key**

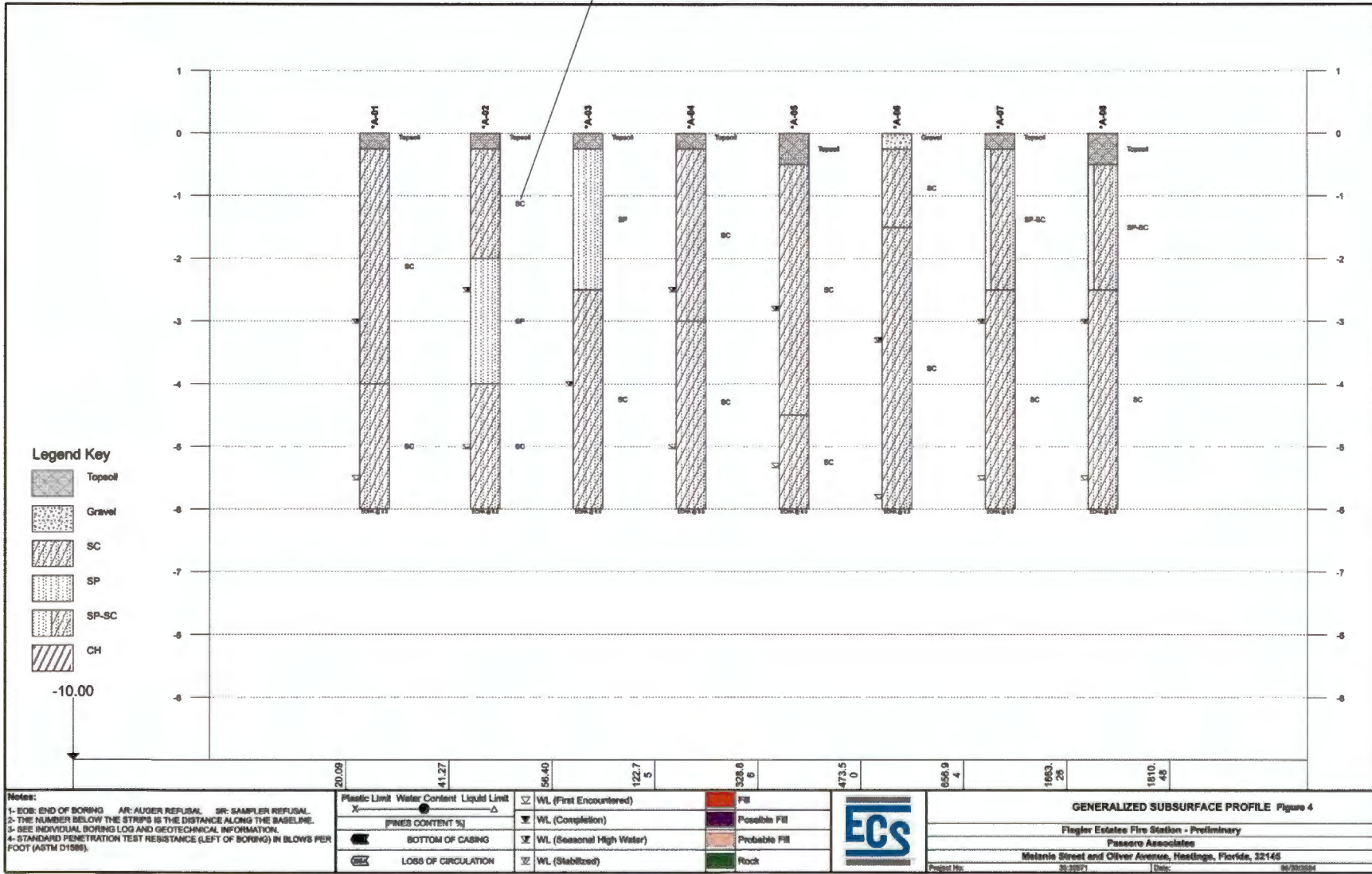
- Topsoil
- SC
- SP-SC
- SP
- CH
- SP-SM

-29.00

<b>Notes:</b> 1- EOB: END OF BORING    AR: AUGER REFUSAL    SR: SAMPLER REFUSAL 2- THE NUMBER BELOW THE STRIPS IS THE DISTANCE ALONG THE BASELINE. 3- SEE INDIVIDUAL BORING LOG AND GEOTECHNICAL INFORMATION. 4- STANDARD PENETRATION TEST RESISTANCE (LEFT OF BORING) IN BLOWS PER FOOT (ASTM D1585).	Plastic Limit Water Content Liquid Limit X P U	WL (First Encountered) WL (Completion) WL (Seasonal High Water) WL (Stabilized)	Fill Possible Fill Probable Fill Rock		<b>GENERALIZED SUBSURFACE PROFILE Figure 3</b> Flagler Estates Fire Station - Preliminary Passero Associates Melanie Street and Oliver Avenue, Hastings, Florida, 32148
	LOSS OF CIRCULATION	WL (First Encountered)	Fill		
	LOSS OF CIRCULATION	WL (Seasonal High Water)	Probable Fill		
	LOSS OF CIRCULATION	WL (Stabilized)	Rock		

BID SET

NOTE: PER GEOTECHNICAL ENGINEER'S RECOMMENDATION, A VERTICAL SEPARATION OF 2' BETWEEN THE TOP OF SC TYPE SOILS AND THE BOTTOM OF CONCRETE FOUNDATIONS/PAVEMENT SHALL BE MAINTAINED. OVEREXCAVATION SHALL BE REQUIRED WHERE NEEDED TO PROVIDE THIS SEPARATION; OVEREXCAVATED AREAS SHALL BE FILLED WITH STRUCTURAL FILL OR NO. 57 STONE. SC AND CH TYPE CLAY SOILS SHALL NOT BE USED AS FILL WITHIN TOP 1' FROM FINISHED GRADE WITHIN GREEN AREAS. THE USE OF SOILS EXCAVATED FROM THE PROPOSED POND AREA OR ELSEWHERE ON SITE SHALL MEET THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. SEE THE GEOTECHNICAL REPORT FOR FURTHER DETAILED INFORMATION AND REQUIREMENTS.



Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp



Client



**Passero Associates**

Principal-in-Charge: Andrew Holuba  
Project Manager: M. BRIDGEMAN  
Civil Engineer: M. BRIDGEMAN  
Designed by: J. LEE

**GEOTECHNICAL  
BORING LOG**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

Town/City: PALM BACH  
County/State: FLORIDA

Project No.: 20213261.0012

Drawing No.: C-102

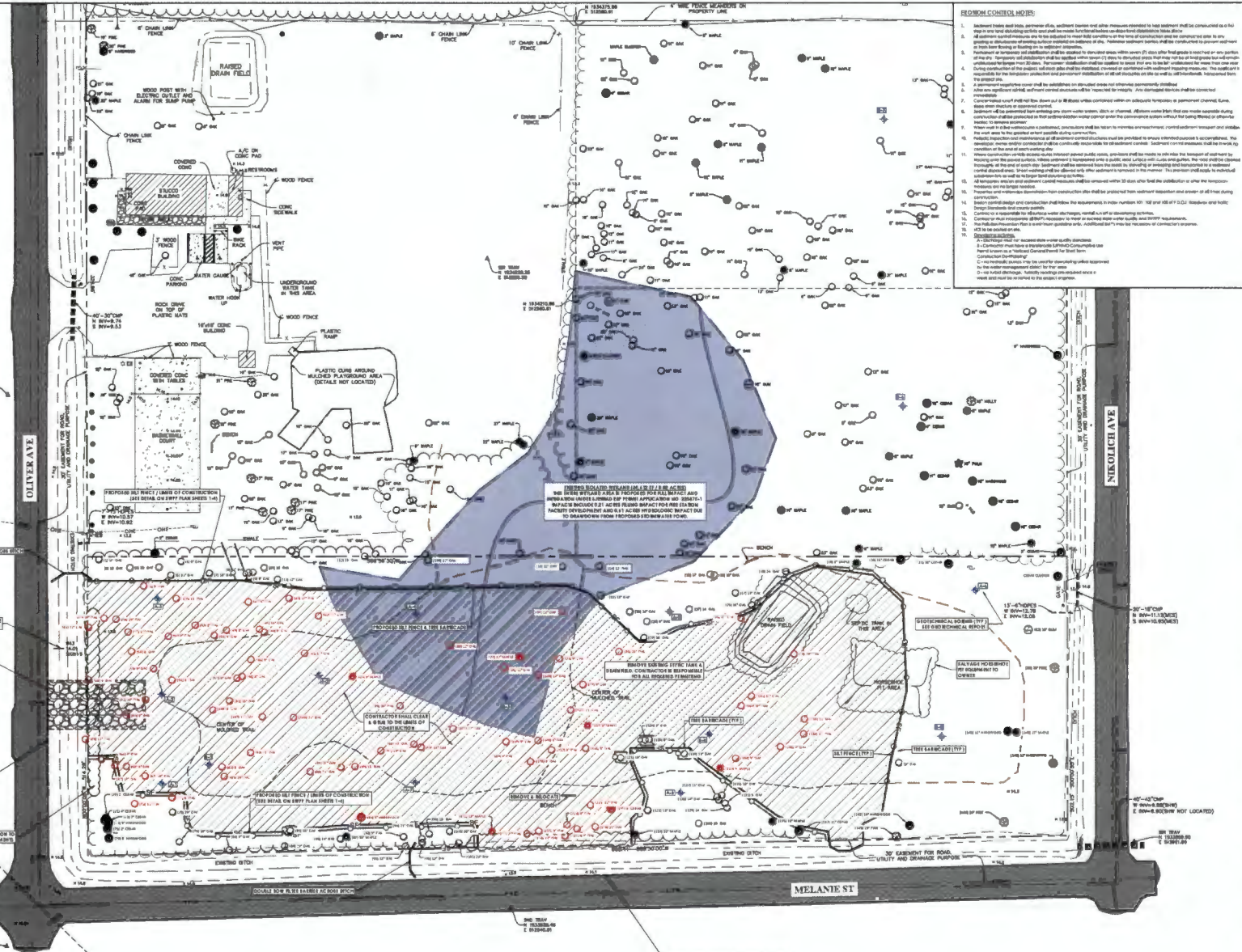
Date: November 15, 2024

BID SET

November 27, 2024, 10:28 AM EST

**LEGEND**

- EXISTING WETLAND AREA
- PROPOSED SILT FENCE
- PROPOSED TREE BARRICADE
- PROPOSED LIMITS OF CLEARING & GRUBBING
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TREE REMOVAL
- PROPOSED TREE PRESERVATION
- BORING LOCATION & I.D.



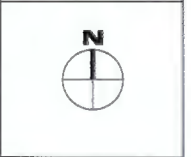
**EROSION CONTROL NOTES:**

1. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
2. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
3. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
4. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
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14. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
15. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
16. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
17. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
18. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
19. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.
20. All erosion control measures shall be installed prior to any excavation or earthwork operations for the project.

**PASSERO**  
architecture engineering

0' 15' 30' 60'

SCALE 1" = 30'



Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:

Client:

**Passero Associates**

Principal: Erik S. Passero  
Project Manager: M. Boglestrey  
Civil Engineer: M. Boglestrey  
Designed by: J. Lutz

No.	Date	Revisions

**EROSION CONTROL & DEMOLITION PLAN**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

Project No.: 20213261.0012  
Drawing No.: C-200  
Date: November 15, 2024

**CONTRACTOR NOTES:**

1. SEE LANDSCAPE DOCUMENTS FOR TREE REMOVAL PLAN.
2. SEE GEOTECHNICAL REPORT SECTION 5.1 SUBGRADE PREPARATION.

DATE PLOTTED: 11/15/2024 10:58:11 AM; PLOTTER: HP DesignJet 2450; PLOT SCALE: 1"=30'; PLOT SHEET: C-200

**LEGEND**

EXISTING SPOT ELEVATION +11.0

EXISTING WETLAND AREA

PROPOSED BUILDING FOOTPRINT

PROPOSED 4" CONCRETE PAVEMENT

PROPOSED 6" CONCRETE PAVEMENT

PROPOSED 8" CONCRETE PAVEMENT

PROPOSED 4" GRASS PAVEMENT

PROPOSED ASPHALT & GRANITE

PROPOSED WATER TOWER AREA (SEE A.T. NO. 3)

**SITE DATA TABLE**

ACRES: 10.00  
 TOTAL PROJECT AREA: 434,000 SQ. FT.  
 PROPOSED BUILDING AREA: 100,000 SQ. FT.  
 PROPOSED PAVEMENT AREA: 100,000 SQ. FT.  
 PROPOSED GRASS PAVEMENT AREA: 100,000 SQ. FT.  
 PROPOSED ASPHALT & GRANITE AREA: 100,000 SQ. FT.  
 PROPOSED WATER TOWER AREA: 100,000 SQ. FT.

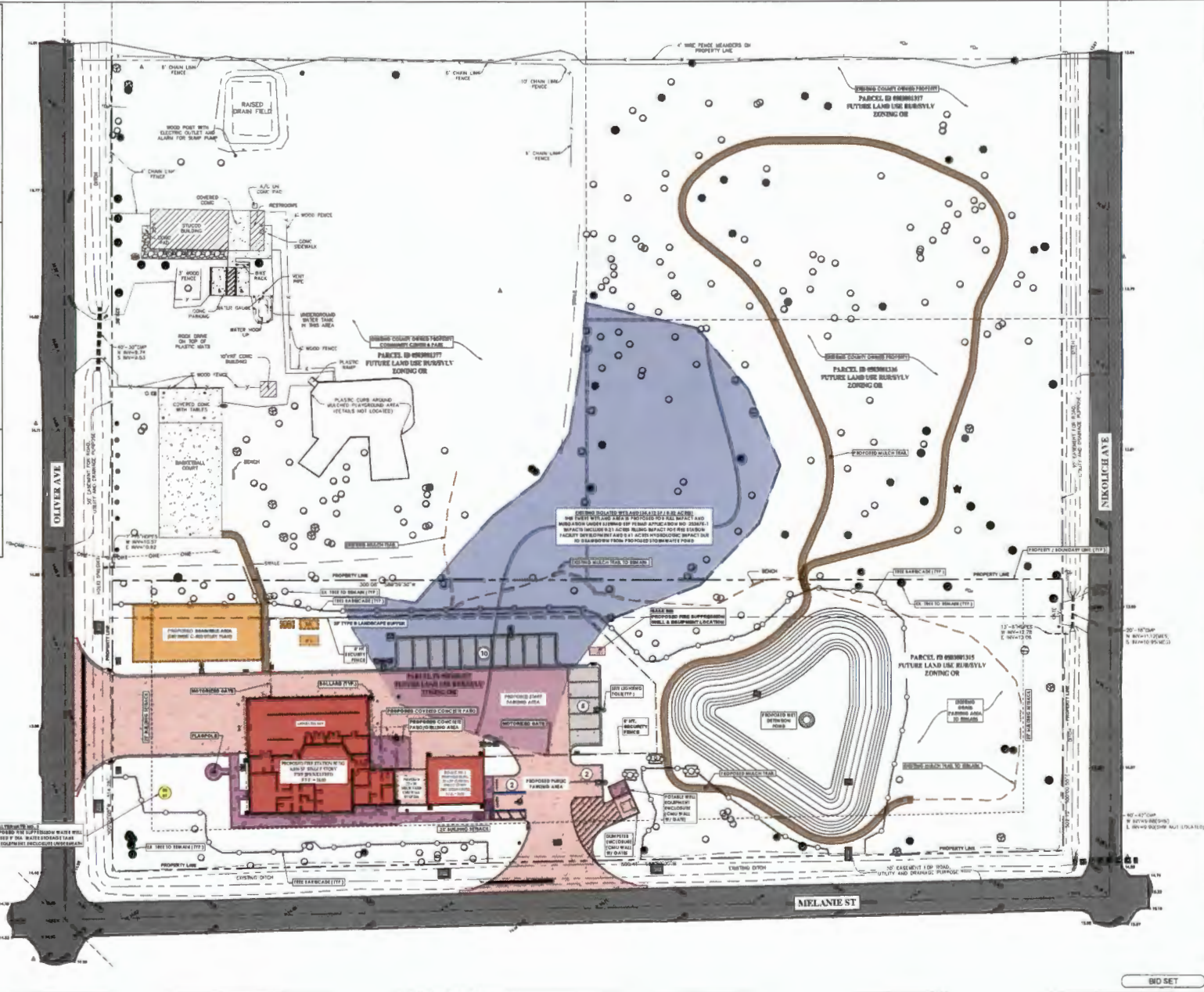
**PARKING CALCULATIONS**

REQUIREMENTS: 1 SPACE PER 100 SF OF BUILDING AREA  
 EXISTING SPACES: 100  
 NEW SPACES: 100  
 TOTAL SPACES: 200

**SITE PLAN NOTE**

1. SEE OTHER CIVIL SITE PLAN SHEETS FOR DETAILED SITE LAYOUT, INFORMATION, & REQUIREMENTS.



**PASSERO**  
architecture engineering

0' 15' 30' 60'  
SCALE 1" = 30'

**N**

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHN'S COUNTY, FLORIDA

Stamp:  
Professional Engineer Seal for Andrew Hobello, No. 11114, State of Florida, expires 11/11/2024.

Client:  
**ST. JOHN'S COUNTY  
FIRE AND RESCUE**

**Passero Associates**  
Principal-in-Charge: Andrew Hobello  
Project Manager: M. BROSSETTARY  
Civil Engineer: M. BROSSETTARY  
Designer: J. LAKE

**Revisions**

No.	Date	By	Comments

**OVERALL  
SITE PLAN**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

Township:  
HASTINGS  
County:  
ST. JOHN'S COUNTY, FLORIDA

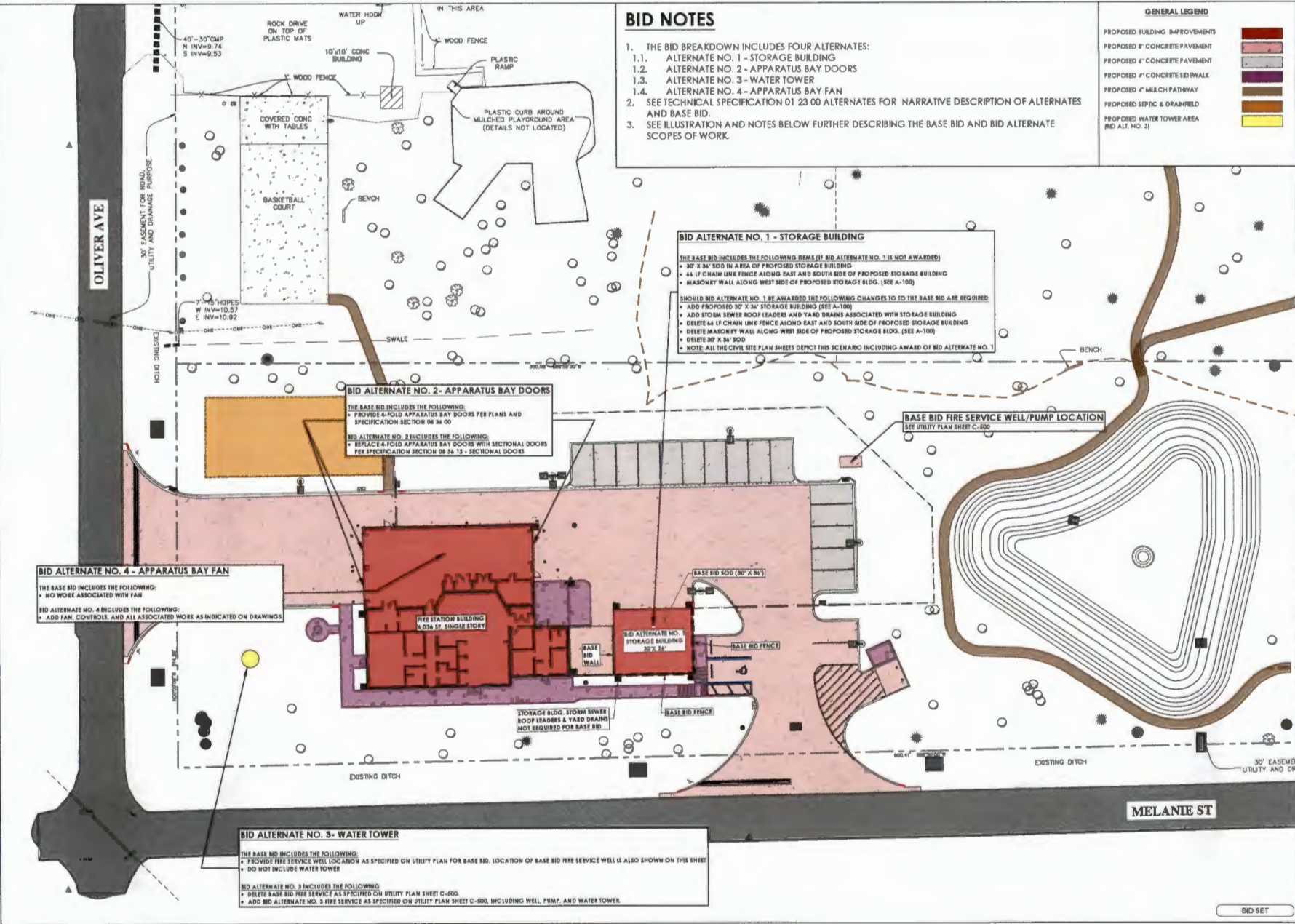
Project No.:  
20213261.0012

Drawing No.:  
C-300

Date:  
November 15, 2024

BID SET





- ### BID NOTES
- THE BID BREAKDOWN INCLUDES FOUR ALTERNATES:
    - ALTERNATE NO. 1 - STORAGE BUILDING
    - ALTERNATE NO. 2 - APPARATUS BAY DOORS
    - ALTERNATE NO. 3 - WATER TOWER
    - ALTERNATE NO. 4 - APPARATUS BAY FAN
  - SEE TECHNICAL SPECIFICATION 01 23 00 ALTERNATES FOR NARRATIVE DESCRIPTION OF ALTERNATES AND BASE BID.
  - SEE ILLUSTRATION AND NOTES BELOW FURTHER DESCRIBING THE BASE BID AND BID ALTERNATE SCOPES OF WORK.

#### GENERAL LEGEND

- PROPOSED BUILDING IMPROVEMENTS
- PROPOSED 8" CONCRETE PAVEMENT
- PROPOSED 4" CONCRETE PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED 4" GRASS PATHWAY
- PROPOSED SEPTIC & DRAINFIELD
- PROPOSED WATER TOWER AREA (NO ALT. NO. 3)

**PASSERO**  
architecture engineering

0' 10' 20' 40'  
SCALE: 1" = 20'

N

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

State:

11/15/2024

Client:

ST. JOHNS COUNTY  
EST. 1955  
OFFICE OF COUNTY ENGINEER

**Passero Associates**

4630 Old Hwy, Suite 200 West Melbourne, FL 32909  
Principal-In-Charge: Andrew Henders  
Project Manager: M. Brelviary  
Civil Engineer: M. Brelviary  
Designed by: A. Lutz

Revisions	
No.	Description

Drawing Title:  
**BID PLAN**

Project Location:  
**4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

Project No.:  
**20213281.0012**

Drawing No.:  
**C-301**

Date:  
**November 15, 2024**

BID SET

**GENERAL LEGEND**

PROPOSED BUILDING IMPROVEMENT	[Red Box]
PROPOSED 8" CONCRETE PAVEMENT	[Light Red Box]
PROPOSED 4" CONCRETE PAVEMENT	[Lighter Red Box]
PROPOSED 4" CONCRETE SIDEWALK	[Purple Box]
PROPOSED 4" MULCH PATHWAY	[Orange Box]
PROPOSED SEPTIC & DRAINFIELD	[Yellow Box]
PROPOSED WATER TOWER AREA (RD ALT. NO. 3)	[Yellow Box]

- SITE GEOMETRY NOTES**
- SEE TOPOGRAIC SURVEY FOR SURVEY CONTROL INFORMATION.
  - REFER TO OTHER CIVIL PLAN SHEETS AND DETAILS FOR ADDITIONAL SITE LAYOUT INFORMATION.
  - SEE CONCRETE PAVEMENT AND JOINT DETAILS FOR ADDITIONAL CONCRETE SLAB LAYOUT AND JOINTING REQUIREMENTS. ISOLATION JOINTS SHALL BE INSTALLED AT INTERFACE OF FINISH PAVEMENT WITH BUILDING SLAB, CONCRETE CURBS, CONCRETE CURB, WHICH CONCRETE PAVEMENT, CONCRETE DRAINAGE STRUCTURES, CONCRETE BOLLARD FOUNDATIONS, AND ASPHALT PAVEMENT.
  - SEE STRUCTURAL PLANS FOR FOUNDATION LAYOUT AND COORDINATE APPROPRIATELY WITH CIVIL SITE PLAN LAYOUT.
  - SEE ARCHITECTURAL FLOOR PLAN FOR ADDITIONAL BUILDING LAYOUT INFORMATION.
  - SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR MECHANICAL ENCLOSURE LAYOUT AND COORDINATE WITH UTILITY AND DRAINAGE REMS.
  - SEE LANDSCAPE PLANS FOR COORDINATION OF SITE LAYOUT.

**HORIZONTAL CONTROL POINT TABLE**

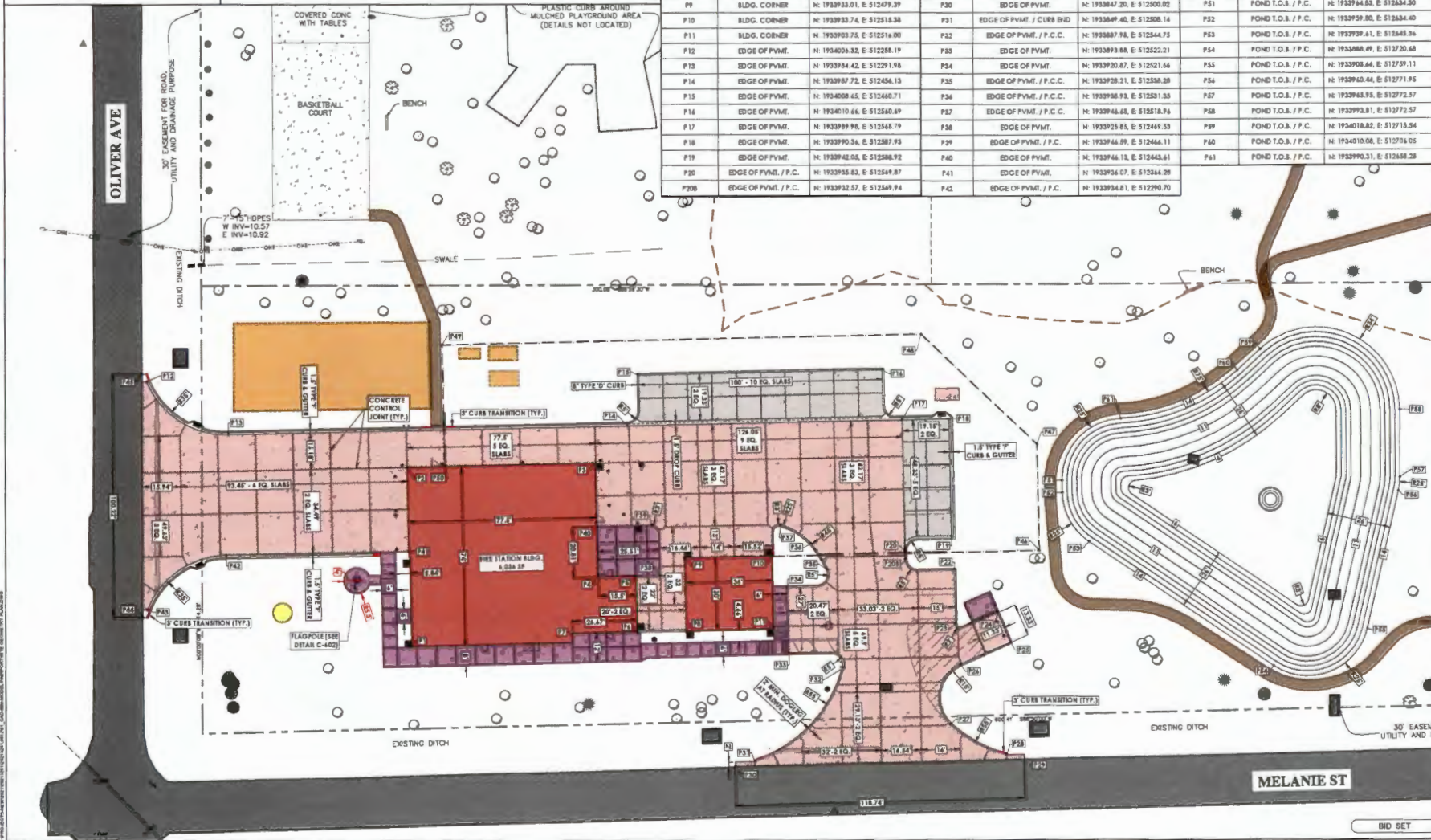
POINT NAME	POINT DESCRIPTION	POINT LOCATION (NORTHING & EASTING)
P1	BLDG. CORNER	N: 1933879.73 E: 512347.42
P2	BLDG. CORNER	N: 1933970.73 E: 512345.58
P3	BLDG. CORNER	N: 1933972.33 E: 512443.04
P4	BLDG. CORNER	N: 1933972.33 E: 512444.02
P5	BLDG. CORNER	N: 1933925.43 E: 512459.52
P6	BLDG. CORNER	N: 1933902.42 E: 512460.00
P7	BLDG. CORNER	N: 1933902.07 E: 512453.33
P8	BLDG. CORNER	N: 1933903.02 E: 512460.00
P9	BLDG. CORNER	N: 1933933.01 E: 512479.39
P10	BLDG. CORNER	N: 1933933.74 E: 512513.38
P11	BLDG. CORNER	N: 1933903.75 E: 512516.00
P12	EDGE OF PAVMT.	N: 1934004.32 E: 512258.19
P13	EDGE OF PAVMT.	N: 1933944.42 E: 512291.98
P14	EDGE OF PAVMT.	N: 1933947.72 E: 512454.13
P15	EDGE OF PAVMT.	N: 1934008.45 E: 512460.71
P16	EDGE OF PAVMT.	N: 1934010.46 E: 512540.49
P17	EDGE OF PAVMT.	N: 1933989.96 E: 512548.79
P18	EDGE OF PAVMT.	N: 1933990.36 E: 512587.93
P19	EDGE OF PAVMT.	N: 1933942.06 E: 512588.92
P20	EDGE OF PAVMT. / P.C.	N: 1933935.63 E: 512549.87
P20B	EDGE OF PAVMT. / P.C.	N: 1933932.57 E: 512549.94

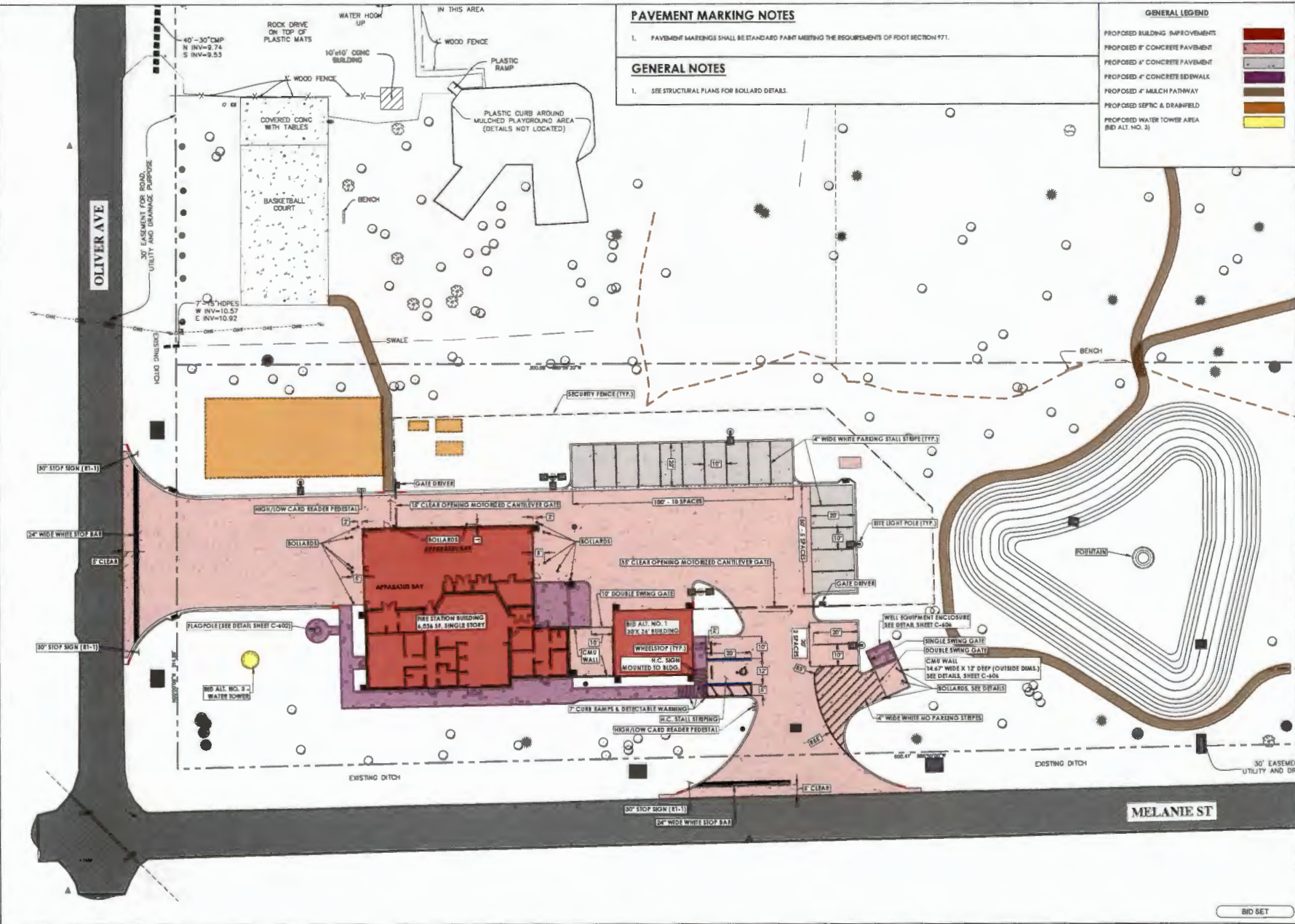
**HORIZONTAL CONTROL POINT TABLE**

POINT NAME	POINT DESCRIPTION	POINT LOCATION (NORTHING & EASTING)
P22	EDGE OF PAVMT.	N: 1933927.98 E: 512590.03
P23	EDGE OF PAVMT. / P.C.	N: 1933903.28 E: 512590.48
P24	EDGE OF PAVMT.	N: 1933910.45 E: 512407.88
P25	EDGE OF PAVMT.	N: 1933928.31 E: 512613.23
P26	EDGE OF PAVMT. / P.C.	N: 1933889.19 E: 512392.57
P27	EDGE OF PAVMT. / P.C.C.	N: 1933864.54 E: 512588.30
P28	EDGE OF PAVMT. / CURB END	N: 1933851.85 E: 512611.33
P29	EDGE OF PAVMT.	N: 1933800.07 E: 512618.72
P30	EDGE OF PAVMT.	N: 1933847.30 E: 512300.02
P31	EDGE OF PAVMT. / CURB END	N: 1933849.46 E: 512308.14
P32	EDGE OF PAVMT. / P.C.C.	N: 1933887.94 E: 512344.75
P33	EDGE OF PAVMT.	N: 1933893.84 E: 512322.21
P34	EDGE OF PAVMT.	N: 1933930.87 E: 512521.44
P35	EDGE OF PAVMT. / P.C.C.	N: 1933928.21 E: 512338.28
P36	EDGE OF PAVMT. / P.C.C.	N: 1933928.93 E: 512331.35
P37	EDGE OF PAVMT. / P.C.C.	N: 1933944.48 E: 512518.76
P38	EDGE OF PAVMT.	N: 1933925.85 E: 512449.53
P39	EDGE OF PAVMT. / P.C.	N: 1933946.89 E: 512444.11
P40	EDGE OF PAVMT.	N: 1933946.13 E: 512443.41
P41	EDGE OF PAVMT.	N: 1933934.07 E: 512544.28
P42	EDGE OF PAVMT. / P.C.	N: 1933943.81 E: 512290.70

**HORIZONTAL CONTROL POINT TABLE**

POINT NAME	POINT DESCRIPTION	POINT LOCATION (NORTHING & EASTING)
P43	EDGE OF PAVMT.	N: 1933912.36 E: 512258.22
P44	EDGE OF PAVMT.	N: 1933909.26 E: 512334.37
P45	EDGE OF PAVMT.	N: 1934009.48 E: 512334.32
P46	FENCE CORNER	N: 1933953.74 E: 512424.89
P47	FENCE CORNER	N: 1933979.74 E: 512424.00
P48	FENCE CORNER	N: 1934025.27 E: 512574.99
P49	FENCE CORNER	N: 1934021.32 E: 512580.14
P50	FENCE / GATE END	N: 1933970.97 E: 512381.15
P51	POND T.O.S. / P.C.	N: 1933944.83 E: 512434.30
P52	POND T.O.S. / P.C.	N: 1933959.80 E: 512434.40
P53	POND T.O.S. / P.C.	N: 1933939.41 E: 512548.34
P54	POND T.O.S. / P.C.	N: 1933888.49 E: 512720.68
P55	POND T.O.S. / P.C.	N: 1933908.44 E: 512759.11
P56	POND T.O.S. / P.C.	N: 1933940.44 E: 512771.95
P57	POND T.O.S. / P.C.	N: 1933945.95 E: 512772.57
P58	POND T.O.S. / P.C.	N: 1933923.81 E: 512772.57
P59	POND T.O.S. / P.C.	N: 1934018.82 E: 512715.54
P60	POND T.O.S. / P.C.	N: 1934010.08 E: 512704.05
P61	POND T.O.S. / P.C.	N: 1933990.31 E: 512638.28





**PAVEMENT MARKING NOTES**

1. PAVEMENT MARKINGS SHALL BE STANDARD PAINT MEETING THE REQUIREMENTS OF FOOT SECTION 971.

**GENERAL NOTES**

1. SEE STRUCTURAL PLANS FOR BOLLARD DETAILS.

**GENERAL LEGEND**

- PROPOSED BUILDING IMPROVEMENTS
- PROPOSED 8" CONCRETE PAVEMENT
- PROPOSED 4" CONCRETE PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED 4" MULCH PATHWAY
- PROPOSED SEPTIC & DRAINFIELD
- PROPOSED WATER TOWER AREA (SEE ALL. NO. 3)

**PASSERO**  
architecture engineering

0' 10' 20' 40'  
SCALE 1" = 20'

N

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:

Client:

**Passero Associates**  
 10000 US Highway 90, Suite 100, Jacksonville, FL 32256  
 Phone: 904.744.1111  
 Fax: 904.744.1112  
 Project Manager: M. SINGLETARY  
 Civil Engineer: J. LIZ

Revisions	
No.	Description

**STRIPING  
SIGNAGE & MISC.  
SITE LAYOUT**

Project Location:  
4830 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

Project No.: 20213261.0012  
Drawing No.: C-303  
Date: November 15, 2024

DRAWING NO. C-303, ALL. NO. 3  
 PROJECT NO. 20213261.0012  
 DATE: 11/15/24  
 DRAWN BY: J. LIZ  
 CHECKED BY: M. SINGLETARY  
 APPROVED BY: M. SINGLETARY  
 PROJECT: ST. JOHNS COUNTY FIRE AND RESCUE STATION IMPROVEMENTS

**GRADING LEGEND**

- EXISTING CONTOUR --- 10.0 ---
- PROPOSED CONTOUR --- 11.0 ---
- EXISTING SPOT ELEVATION --- 10.0 ---
- PROPOSED SPOT ELEVATION (GENERAL) --- 11.0 ---
- PROPOSED SPOT ELEVATION EDGE OF PAVEMENT --- 11.0 TOP ---
- PROPOSED SPOT ELEVATION GUTTER FLOW LINE --- 11.0 FL ---
- PROPOSED SPOT ELEVATION TOP OF CURB --- 11.0 TOC ---
- PROPOSED SPOT ELEVATION HIGH POINT --- 11.0 HP ---
- PROPOSED SURFACE FLOW DIRECTION ARROW ---
- PROPOSED LIMITS OF GRADING ---
- PROPOSED TEMP. EROSION CONTROL SET FENCE ---
- PROPOSED TEMP. EROSION CONTROL DOUBLE ROW FILTER BARRIER ACROSS DITCH ---
- PROPOSED 3" CURB TRANSITION FROM RAIL HEIGHT TO FLUSH ---
- PROPOSED VERTICAL CURB TRANSITION FROM FLUSH TO FLUSH AT SAME LOCATION ---
- PROPOSED FOOT TYPE # 9 CURB INLET WITH CURB AND GUTTER ---
- PROPOSED FOOT DRICH BOTTOM INLET ---
- PROPOSED FOOT U-TYPE ENDWALL ---
- PROPOSED YARD DRAIN ---
- GEOTECHNICAL BORING LOCATION & ID. (SEE GEOTECHNICAL REPORT) ---

**GENERAL LEGEND**

- PROPOSED BUILDING IMPROVEMENTS
- PROPOSED 4" CONCRETE PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED 4" MATCH PATHWAY
- PROPOSED SEPTIC & DRAINFIELD
- PROPOSED WATER TOWER AREA (NO ALL. NO. 2)



**GRADING & DRAINAGE NOTES**

1. SEE SHEET 01 FOR PROPOSED DRAINAGE PLAN AND DRAINAGE STRUCTURE SCHEDULE. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S (FDOT) STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, LATEST EDITION. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION'S (FDOT) STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION, LATEST EDITION.

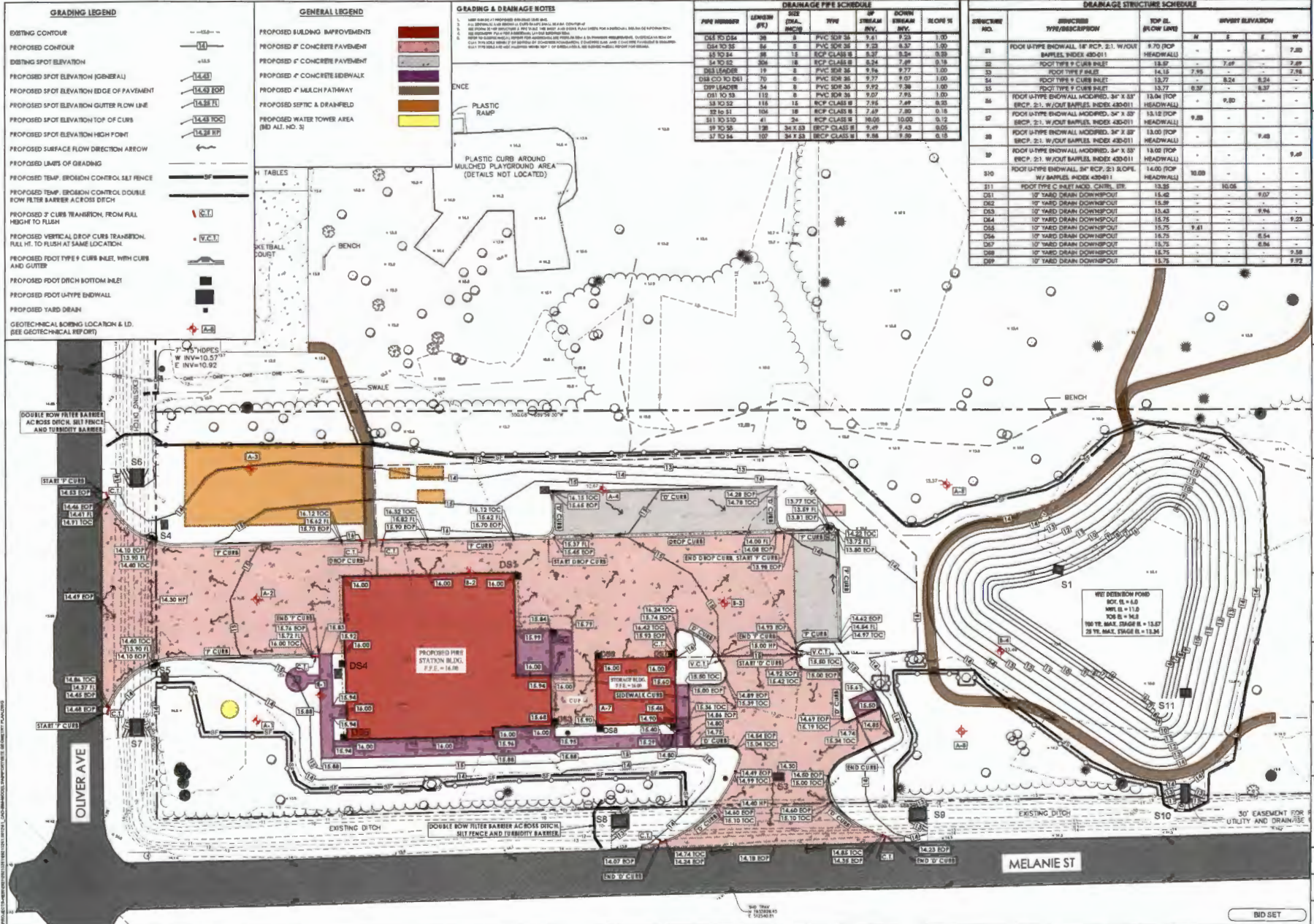
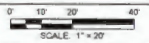
**DRAINAGE PIPE SCHEDULE**

PIPE NUMBER	LENGTH (FT)	SIZE (IN.)	TYPE	STREAM INVERT	DOWN INVERT	SLOPE %
DS4 TO DS4	36	8	PVC SDR 35	9.81	9.20	1.00
DS4 TO S4	54	8	PVC SDR 35	9.23	8.37	1.00
S4 TO DS	36	18	RCP CLASS B	8.24	7.89	0.18
DS1 (PAD) 1	18	8	PVC SDR 35	9.74	9.17	1.00
DS1 (CO TO DEL)	72	8	PVC SDR 35	9.77	9.07	1.00
DRP LEADER	54	8	PVC SDR 35	9.92	9.36	1.00
DS1 TO S1	118	8	PVC SDR 35	9.07	7.83	1.00
S1 TO S2	118	18	RCP CLASS B	7.98	7.49	0.53
S2 TO S1	108	18	RCP CLASS B	7.49	7.30	0.18
S11 TO S10	41	24	RCP CLASS B	10.05	10.00	0.12
S1 TO S9	178	24 X 23	RCP CLASS B	9.49	8.43	0.60
S7 TO S4	107	24 X 23	RCP CLASS B	9.88	9.30	0.18

**DRAINAGE STRUCTURE SCHEDULE**

STRUCTURE NO.	STRUCTURE TYPE/DESCRIPTION	TOP ELEV. (FLOW LINE)	INVERT ELEVATION
S1	FOOT U-TYPE ENDWALL, 18" RCP, 21" W/OUT BARREL, INDEX 430-011	9.70 (TOP HEADWALL)	8.24
S2	FOOT TYPE # 9 CURB INLET	13.57	7.89
S3	FOOT TYPE # 9 CURB INLET	14.13	7.83
S4	FOOT TYPE # 9 CURB INLET	13.77	8.24
S5	FOOT TYPE # 9 CURB INLET	13.77	8.37
S6	FOOT U-TYPE ENDWALL, MODIFIED, 36" X 36" RCP, 21" W/OUT BARREL, INDEX 430-011	13.04 (TOP HEADWALL)	9.80
S7	FOOT U-TYPE ENDWALL, MODIFIED, 36" X 36" RCP, 21" W/OUT BARREL, INDEX 430-011	13.12 (TOP HEADWALL)	9.80
S8	FOOT U-TYPE ENDWALL, MODIFIED, 36" X 36" RCP, 21" W/OUT BARREL, INDEX 430-011	13.00 (TOP HEADWALL)	9.48
S9	FOOT U-TYPE ENDWALL, MODIFIED, 36" X 36" RCP, 21" W/OUT BARREL, INDEX 430-011	13.02 (TOP HEADWALL)	9.49
S10	FOOT U-TYPE ENDWALL, 36" RCP, 21" SLOPE, 18" BARREL, INDEX 430-011	14.00 (TOP HEADWALL)	10.00
S11	FOOT TYPE # 9 CURB INLET, 18" RCP, 21" SLOPE, 18" BARREL, INDEX 430-011	13.85	10.08
DS1	18" YARD DRAIN DOWNPOUT	14.40	9.07
DS2	18" YARD DRAIN DOWNPOUT	14.89	-
DS3	18" YARD DRAIN DOWNPOUT	15.40	8.94
DS4	18" YARD DRAIN DOWNPOUT	15.75	9.23
DS5	18" YARD DRAIN DOWNPOUT	15.75	9.41
DS6	18" YARD DRAIN DOWNPOUT	16.75	8.54
DS7	18" YARD DRAIN DOWNPOUT	16.75	8.54
DS8	18" YARD DRAIN DOWNPOUT	16.75	9.38
DS9	18" YARD DRAIN DOWNPOUT	16.75	9.92

**PASSERO**  
architecture engineering



Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**  
100 YR. MAX. DRAIN B. = 13.87  
28 YR. MAX. DRAIN B. = 13.34

**Revisions**

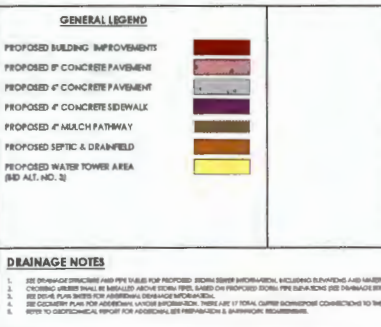
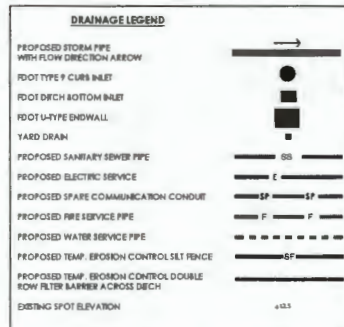
No.	Description

**GRADING PLAN**

Project Location:  
**4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

Project No.: **20213261.0012**  
Drawing No.: **C-400**  
Date: **November 15, 2024**

BID SET



### Drainage Pipe Schedule

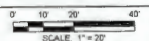
PIPE NUMBER	LENGTH (FT)	SIZE (DIA. INCH)	TYPE	UP STREAM INV.	DOWN STREAM INV.	SLOPE %
D53 TO D54	38	8	PVC SDR 35	9.61	9.23	1.00
D54 TO S3	86	8	PVC SDR 35	9.23	8.37	1.00
S5 TO S4	58	15	RCP CLASS III	8.24	8.24	0.25
S4 TO S2	306	18	RCP CLASS III	8.24	7.49	0.18
D53 LEADER	19	8	PVC SDR 35	9.77	9.77	1.00
D53 CO TO D51	70	8	PVC SDR 35	9.77	9.07	1.00
D59 LEADER	54	8	PVC SDR 35	9.92	9.38	1.00
D51 TO S3	112	8	PVC SDR 35	9.07	7.95	1.00
S3 TO S2	115	15	RCP CLASS III	7.95	7.49	0.25
S2 TO S1	104	18	RCP CLASS III	7.49	7.30	0.18
S11 TO S10	41	24	RCP CLASS III	10.05	10.00	0.12
S9 TO S8	128	34 X S3	ERCP CLASS III	9.49	9.43	0.05
S7 TO S6	107	34 X S3	ERCP CLASS III	9.58	9.50	0.18

### Drainage Structure Schedule

STRUCTURE NO.	STRUCTURE TYPE/DESCRIPTION	TOP EL. (FLOW LINE)	INVERT ELEVATION			
			N	S	E	W
S1	FOOT U-TYPE ENDWALL, 18" RCP, 2:1, W/OUT BAFFLES, INDEX 430-011	9.70 (TOP HEADWALL)	-	-	-	7.30
S2	FOOT TYPE 9 CURB INLET	13.57	-	7.69	-	7.69
S3	FOOT TYPE F INLET	14.15	7.95	-	-	7.95
S4	FOOT TYPE 9 CURB INLET	13.77	-	8.24	8.24	-
S5	FOOT TYPE 9 CURB INLET	13.77	8.37	-	8.37	-
S6	FOOT U-TYPE ENDWALL MODIFIED, 34" X 33" ERCP, 2:1, W/OUT BAFFLES, INDEX 430-011	13.04 (TOP HEADWALL)	-	9.50	-	-
S7	FOOT U-TYPE ENDWALL MODIFIED, 34" X 33" ERCP, 2:1, W/OUT BAFFLES, INDEX 430-011	13.12 (TOP HEADWALL)	9.38	-	-	-
S8	FOOT U-TYPE ENDWALL MODIFIED, 34" X 33" ERCP, 2:1, W/OUT BAFFLES, INDEX 430-011	13.00 (TOP HEADWALL)	-	-	9.43	-
S9	FOOT U-TYPE ENDWALL MODIFIED, 34" X 33" ERCP, 2:1, W/OUT BAFFLES, INDEX 430-011	13.02 (TOP HEADWALL)	-	-	-	9.49
S10	FOOT U-TYPE ENDWALL, 24" RCP, 2:1 SLOPE, W/ BAFFLES, INDEX 430-011	14.00 (TOP HEADWALL)	10.00	-	-	-
S11	FOOT TYPE C INLET MOD. CNTRL. STR.	13.25	-	10.05	-	-
D51	10" YARD DRAIN DOWNPOUT	15.42	-	-	9.07	-
D52	10" YARD DRAIN DOWNPOUT	15.99	-	-	-	-
D53	10" YARD DRAIN DOWNPOUT	15.43	-	-	9.96	-
D54	10" YARD DRAIN DOWNPOUT	15.75	-	-	-	9.23
D55	10" YARD DRAIN DOWNPOUT	15.75	9.61	-	-	-
D56	10" YARD DRAIN DOWNPOUT	15.75	-	-	8.54	-
D57	10" YARD DRAIN DOWNPOUT	15.75	-	-	8.86	-
D58	10" YARD DRAIN DOWNPOUT	15.75	-	-	-	9.58
D59	10" YARD DRAIN DOWNPOUT	15.75	-	-	-	9.92

- ### Drainage Notes
- SEE DRAWING OF STRUCTURE AND PIPE IN SET FOR PROPOSED SEWER INFORMATION, INCLUDING ELEVATIONS AND MATERIAL TYPE SPECIFICATIONS.
  - CHECKING ANDER SHALL BE MAINTAINED ABOVE FLOOD DEPTH BASED ON PROPOSED SEWER PIPE SCHEDULE AND PIPE SIZES. 2' MIN MINIMUM VERTICAL CLEARANCE IS REQUIRED.
  - SEE D54. PLUS NOTES FOR ADDITIONAL OVER-SHADE INFORMATION.
  - SEE COVERAGE PLAN FOR ADDITIONAL VERTICAL INFORMATION. THERE ARE 17 TOTAL CURB SCHEDULE CONNECTIONS TO THE PROPOSED BUILDING APPROX & TOTAL TO THE EXISTING WADING COORDINATE LOCATIONS WITH THE ARCHITECTURAL PLAN.
  - REFER TO GEOTECHNICAL REPORT FOR APPROX. SEE REPAIR-REN & SHAPING/RECONSTRUCTION.

**PASSERO**  
architecture engineering



Prepared for:  
**ST. JOHNS COUNTY FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**  
Principal-in-Charge: Andrew Hackett  
Civil Engineer: M. BROSSETTARY  
Designed by: J. LARC

### Revisions

No.	Date	Description

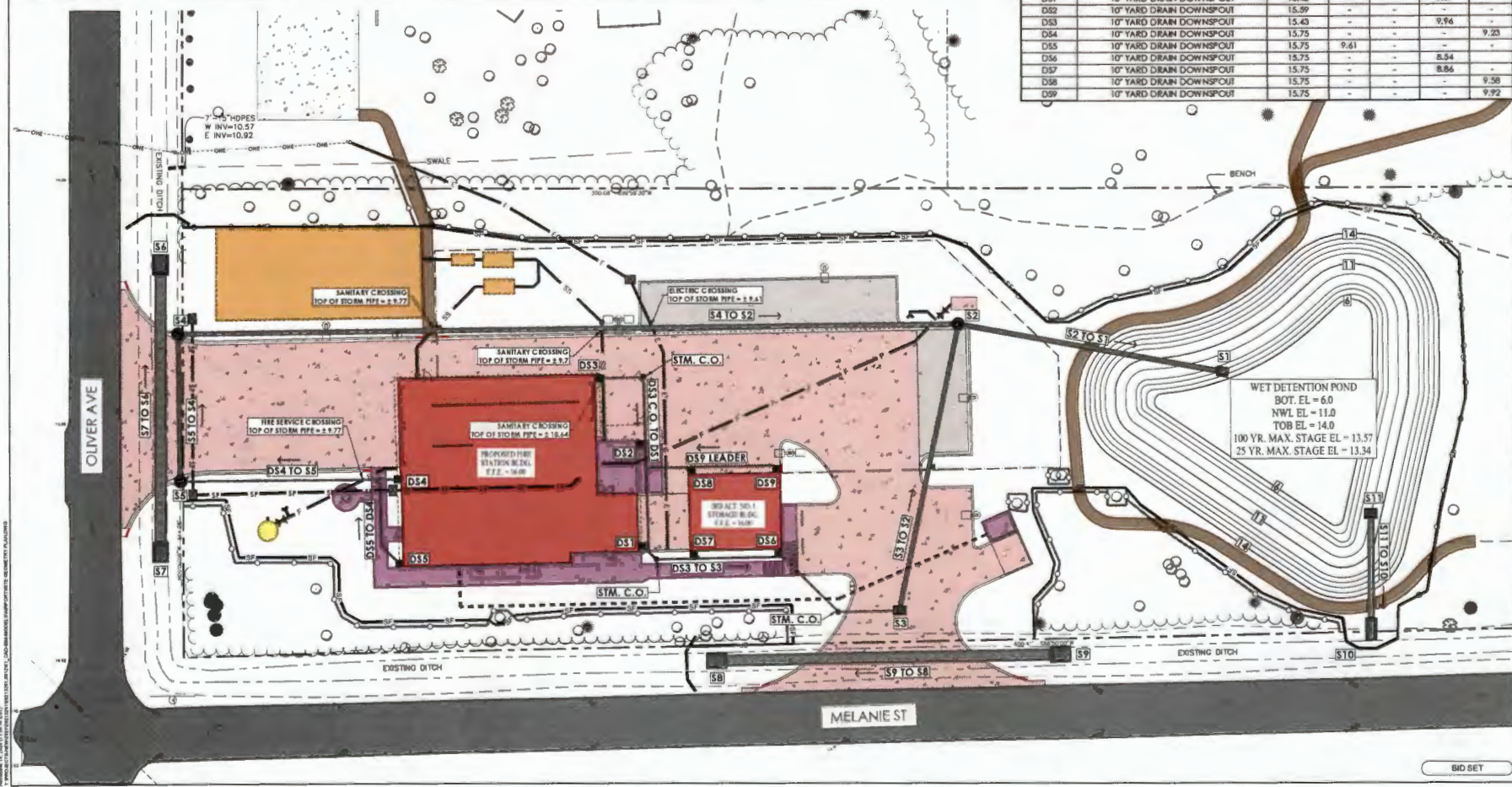
**DRAINAGE PLAN**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION

Project No.: 20213281.0012

Drawing No.: C-401

Date: November 15, 2024



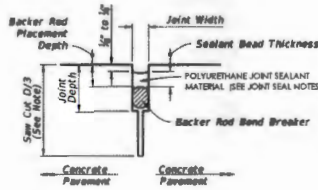
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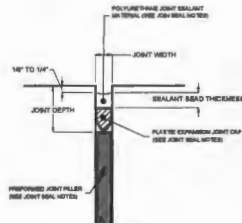
**JOINT SEAL NOTES:**

- D = CONCRETE PAVEMENT THICKNESS
- JOINT SEALANT MATERIAL SHALL BE POLYURETHANE NON-SAG ELASTOMERIC SEALANT, SIKAFLEX-1A OR APPROVED EQUAL. INSTALL JOINT SEALANT MATERIAL PER THE JOINT SEAL DETAILS AND THE MANUFACTURER'S RECOMMENDATIONS.
- ISOLATION & EXPANSION JOINTS:
  - PREFORMED JOINT FILLER SHALL BE RE-FLEX BY J.D. RUSSELL COMPANY OR APPROVED EQUAL.
  - INSTALL PLASTIC EXPANSION JOINT CAP PER ISOLATION JOINT SEAL DETAIL AND PER THE MANUFACTURER'S RECOMMENDATIONS.

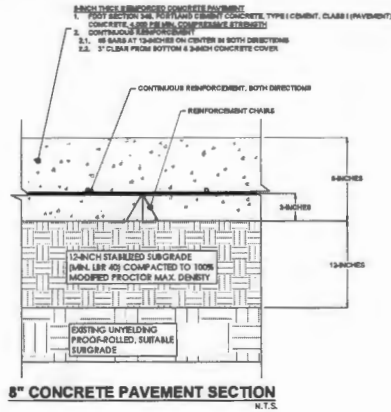
JOINT SEAL DIMENSIONS				
JOINT TYPE	SEALANT BEAD THICKNESS	BACKER ROD DIA.	MINIMUM JOINT DEPTH	BACKER ROD PLACEMENT DEPTH
CONTRACTION	1 1/2"	3/8"	1 1/2"	1 1/2"
ISOLATION	3/2"	N/A	N/A	N/A



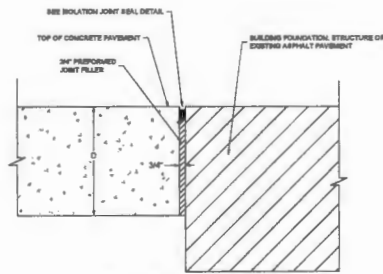
**JOINT SEAL DETAIL**  
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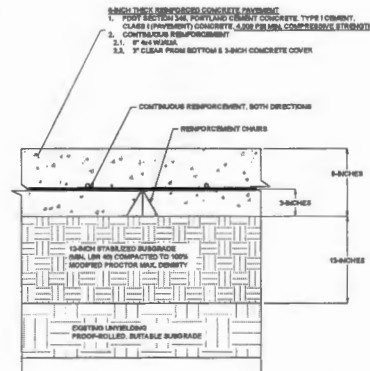
**ISOLATION JOINT SEAL DETAIL**  
N.T.S.



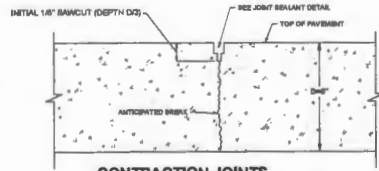
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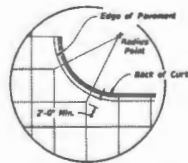
**ISOLATION JOINTS**  
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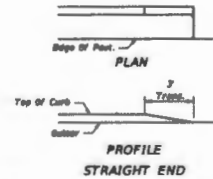
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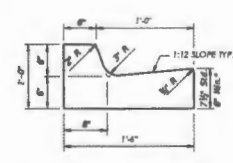
**CONTRACTION JOINTS (LONGITUDINAL & TRANSVERSE)**  
N.T.S.



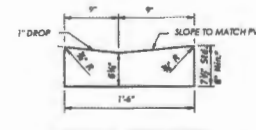
**TYPICAL DOGLEG JOINT AT RADIUS**  
N.T.S.



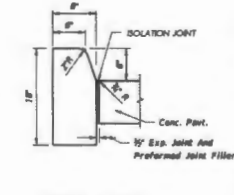
**TYPICAL CURB ENDING TRANSITION**  
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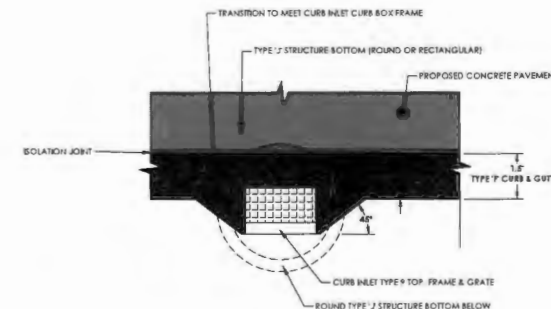
**MODIFIED TYPE 'F' CURB**  
N.T.S.



**MODIFIED DROP CURB**  
N.T.S.



**TYPE 'D' CURB**  
N.T.S.



**FDOT CURB INLET TYPE 9 LAYOUT DETAIL**

- JOINT NOTES:**
- JOINT SPACES SHALL BE AS SPECIFIED AND DEFINED BY THE GEOMETRY PLAN.
  - RECOMMENDED MINIMUM JOINT SPACES BY FEET SHALL BE NO GREATER THAN TWICE THE SLAB THICKNESS IN INCHES.
  - PROVIDE MINIMUM 2\"/>

**CONCRETE PAVEMENT JOINTS**  
N.T.S.

- NOTE:**
- CONCRETE CURBS AND CURBS & GUTTER SHALL MEET THE REQUIREMENTS OF FDOT INDEX 330-001.
  - CONCRETE SHALL BE FOOT CLASS 1 MIN. 5,000 PSI COMPRESSIVE STRENGTH.
  - SEE FDOT INDEX 330-001 FOR FURTHER INFORMATION.
  - SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 1557.

\* WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LP SHALL BE 5\"/>

**CONCRETE CURB & GUTTER**  
N.T.S.



4630 MELANIE STREET, SUITE 200, AUSTIN, TEXAS 78746  
 512-453-1111  
 Project Manager: M. S. PASSERO  
 Civil Engineer  
 Designed by: A. L. USE

No.	Date	By	Description

**SITE DETAILS**

Project Location:  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION  
Town/County:  
Flagler/St. Johns  
Client:  
ST. JOHNS COUNTY, FLORIDA

Project No.: 20213261.0012

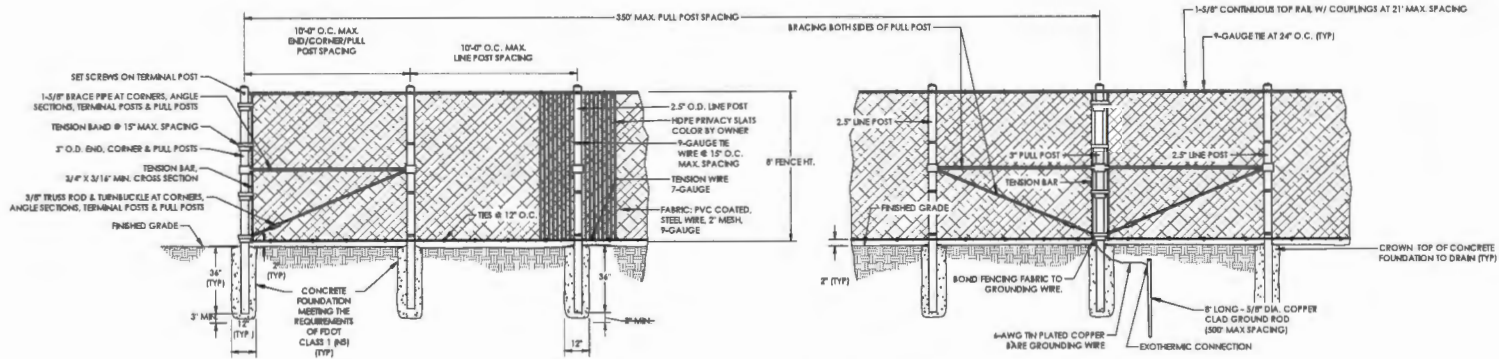
Drawing No.: C-601

Date: November 15, 2024

BD SET

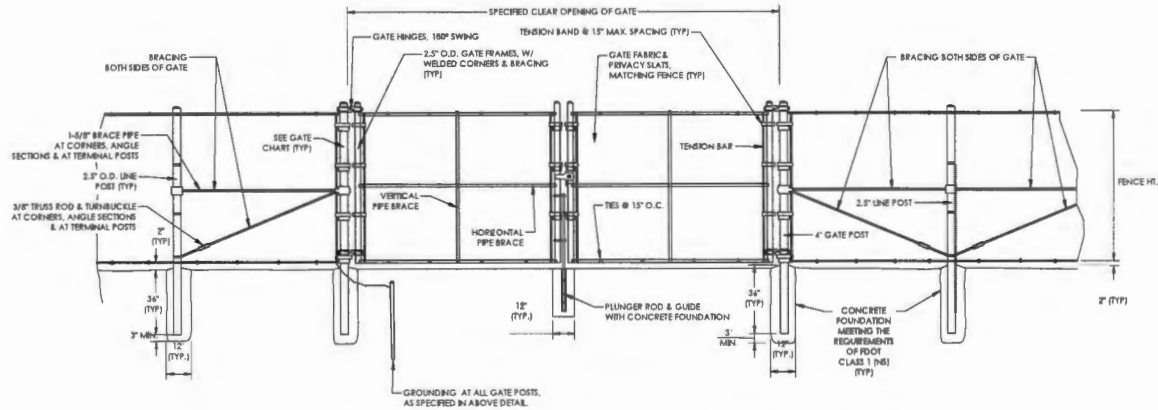






NOTE: ALL FENCE SHALL BE PVC COATED, COLOR BY OWNER.

**8' CHAIN LINK SECURITY FENCE DETAIL**  
N.T.S.



NOTE: ALL FENCE SHALL BE PVC COATED, COLOR BY OWNER.

**DOUBLE SWING GATE DETAIL**  
N.T.S.

GATE CHART		POST SIZE	DEPTH OF POST SETTING	CONCRETE FOOTING
SINGLE	DOUBLE			
UP TO AND INCLUDING 6'-0\"/>				

**FENCE & GATE NOTES:**

- LINE POSTS, RAILS, AND BRACES SHALL CONFORM TO THE REQUIREMENTS OF ASTM F-1043, PARAGRAPH 7.3. OPTIONAL SUPPLEMENTAL COLOR COATING; AND SHALL BE PVC-COATED COLOR BY OWNER. MATCHING FABRIC.
- ALL FABRIC SHALL BE WOVEN WITH A 9-GAUGE POLYVINYL CHLORIDE (PVC)-COATED STEEL WIRE IN A 2 IN MESH AND SHALL MEET THE REQUIREMENTS OF ASTM F 446, CLASS 2B.
- FULL POSTS SHALL BE USED AT BREAKS IN VERTICAL GRADES OF 15° OR MORE, OR AT APPROXIMATELY 350' CENTERS. CORNER POSTS ARE TO BE INSTALLED AT ALL HORIZONTAL BREAKS IN FENCE AT 15° OR MORE AND AS REQUIRED AT VERTICAL BREAKS OVER 15° AS DETERMINED BY THE ENGINEER.
- INSTALLING FABRIC: THE WIRE FABRIC SHALL BE FIRMLY ATTACHED TO THE POSTS AND BRACED IN THE MANNER SHOWN ON THE PLANS. ALL WIRES SHALL BE STRETCHED TIGHT AND SHALL BE INSTALLED TO THE REQUIRED ELEVATIONS. THE FENCE SHALL GENERALLY FOLLOW THE CONTOUR OF THE GROUND, WITH THE BOTTOM OF THE FENCE FABRIC NO LESS THAN 1" OR MORE THAN 2" FROM THE GROUND SURFACE. GRADING SHALL BE PERFORMED WHERE NECESSARY. AT LOCATIONS OF SMALL NATURAL SWALES OR DRAINAGE DITCHES AND WHERE IT IS NOT PRACTICAL TO HAVE THE FENCE CONFORM TO THE GENERAL CONTOUR OF THE GROUND SURFACE, LONGER POSTS MAY BE USED AND MULTIPLE STRANDES OF BARBED WIRE STRETCHED THEREON TO SPAN THE OPENING BELOW THE FENCE (SEE FENCE DITCH CROSSING DETAIL). THE VERTICAL CLEARANCE BETWEEN STRANDES OF BARBED WIRE SHALL BE 6 INCHES OR LESS.
- CONCRETE POST FOUNDATIONS MAY BE SET WITH CURBES EDGE FLUSH WITH FINISHED GROUND, & CROWNED TO DRAIN.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS HARDWARE AND FITTINGS REQUIRED TO PROVIDE A COMPLETE FENCE, EVEN IF NOT SPECIFICALLY IDENTIFIED IN THE PLANS OR SPECIFICATIONS.
- THE PROPOSED FENCE & GATE ASSEMBLIES SHALL BE APPROVED THROUGH THE SHOP DRAWING REVIEW PROCESS PRIOR TO FABRICATION.

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:



Client:



**Passero Associates**

4630 Melanie Street, Suite 200  
Melbourne, Florida 32909  
Professional Engineer: James M. Hartsford  
Project Manager: M. Bramlett  
Civil Engineer: M. Bramlett  
Designed by: J. Lee

**Revisions**

No.	Date	Description

Drawing Title:

**SITE DETAILS**

Project Location:  
**4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**  
Town/County:  
HARTSFORD  
ST. JOHNS COUNTY, FLORIDA

Project No.: **20213261.001.2**

Drawing No.: **C-603**

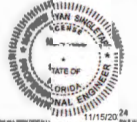
Date: **November 15, 2024**

BID SET

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp:



Client:



**Passero Associates**

Principal-in-Charge: M. SORRELLTARY  
Project Manager: M. SORRELLTARY  
Civil Engineer: M. SORRELLTARY  
Designed by: J. LANE

Revisions:

No.	By	Date	Description

Drawing Title:

**SITE DETAILS**

Project Location:

**4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

Project No.:

**20213261.0012**

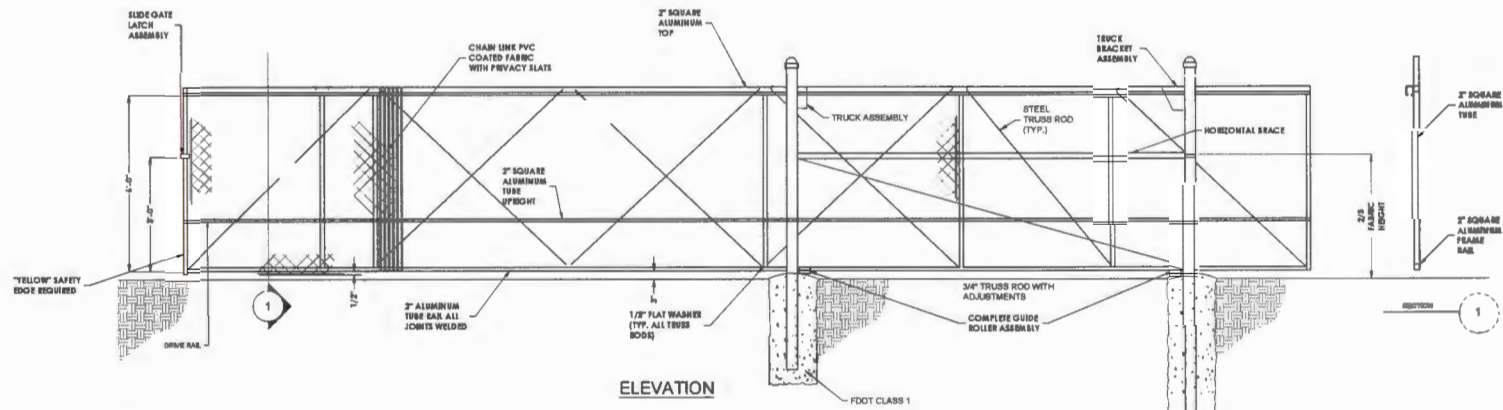
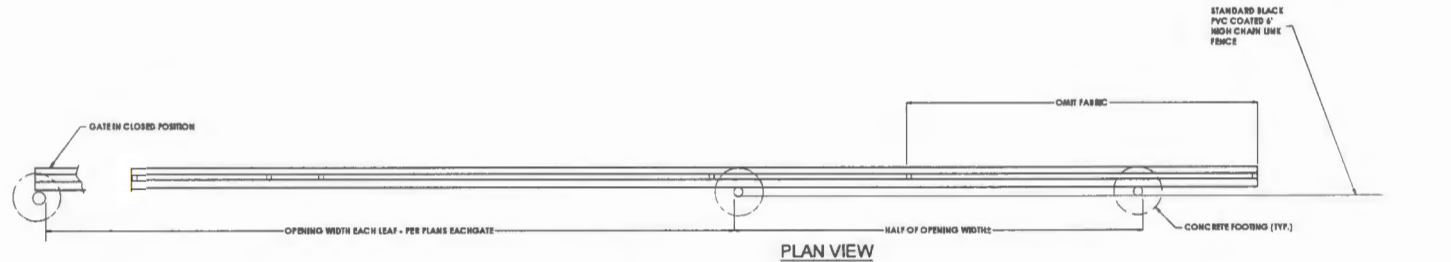
Drawing No.:

**C-604**

Date:

**November 15, 2024**

BID SET



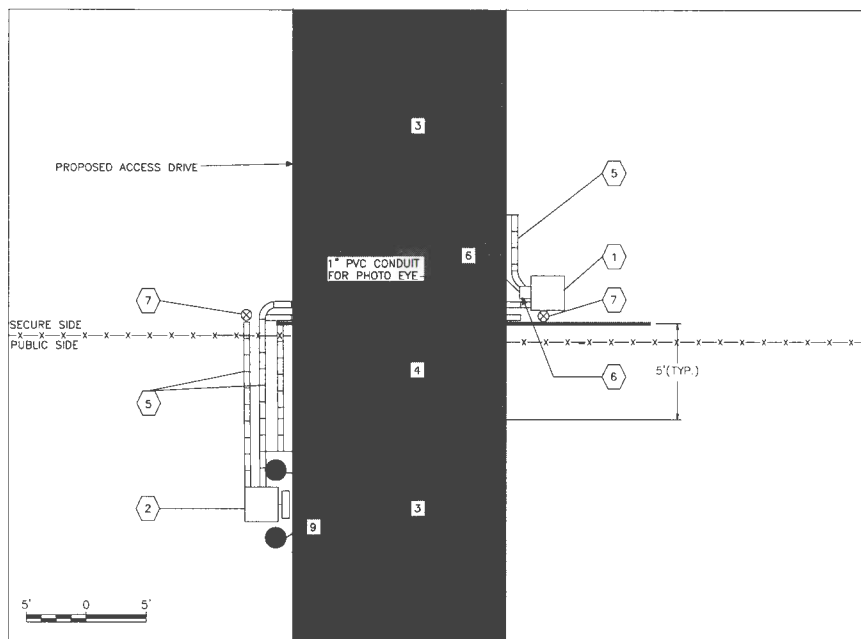
**NOTE: GATES SHALL BE PVC-COATED OR POWDER-COATED TO MATCH FENCE COLOR.**

**GATE NOTES:**

1. GATE LEAFS SHALL BE INSTALLED AS DETAILED ON THE CONTRACT PLANS.
2. WELDS ON FRAMES SHALL BE GROUND SMOOTH.
3. DIMENSIONS OF POSTS, RAILS, AND BRACES SHALL BE IN ACCORDANCE WITH TABLE 1 THROUGH VI OF FED SPEC. 85A-29.2/3
4. GATE MOTORS SHALL BE INSTALLED IN SECURE AREA AS PER MANUFACTURER INSTRUCTIONS UNLESS NOTED OTHERWISE.
5. GATE OPERATORS SHALL BE FREQUENCY SLIDE-OVERDRIVE 30P OR APPROVED EQUAL.
6. GATE MOTOR SHALL BE GROUNDED TO ITS OWN 3/8" x 10' COPPER GROUND ROD.

**SINGLE LEAF CANTILEVER SLIDING GATE DETAILS**  
N.T.S

PROJECT NO. 20213261.0012 DATE: NOVEMBER 15, 2024  
 DRAWING NO. C-604  
 SCALE: N.T.S.  
 SHEET NO. 1 OF 1



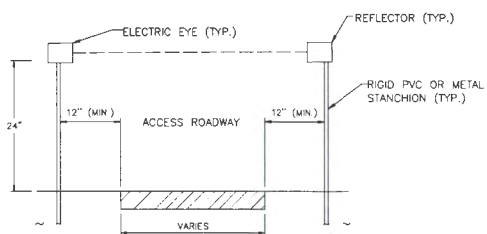
**KEYED LEGEND**

1	PROPOSED GATE DRIVER
2	PROPOSED CARD READER PEDESTAL ASSEMBLY
3	PROPOSED DETECTOR LOOP
4	PROPOSED CANTILEVER GATE
5	1" PVC CONDUIT
6	PROPOSED 9"x9" NEMA4 ENCLOSURE ALUMINUM MOUNTED OPPOSITE OF HYDRAULIC MOTOR
7	PROPOSED PHOTO EYE
8	BOLLARD

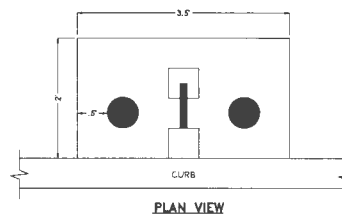
**NOTES:**

1. SEE PLANS FOR REQUIRED DIRECTION OF OPENING AND ORIENTATION OF GATE DRIVER.
2. GATE DRIVER SHALL HAVE HIDDEN SWITCH/BUTTON TO OPEN GATE BY PEDESTRIANS FROM THE INTERIOR/SECURE SIDE, BUT SHALL NOT BE REACHABLE FROM THE NON-SECURE SIDE.
3. ALL EQUIPMENT SHALL BE MOUNTED ON CONCRETE PADS, MIN. 4" THICKNESS, PER THE MANUFACTURER'S RECOMMENDATIONS. SLABS SHALL HAVE 10 GA WWF & HAVE 3/4" CHAMFERED EDGES AT ALL SIDES. SLAB SIZE SHALL BE AT LEAST 6" LARGER THAN THE FURTHEST POINT ON THE EQUIPMENT ON ALL SIDES.

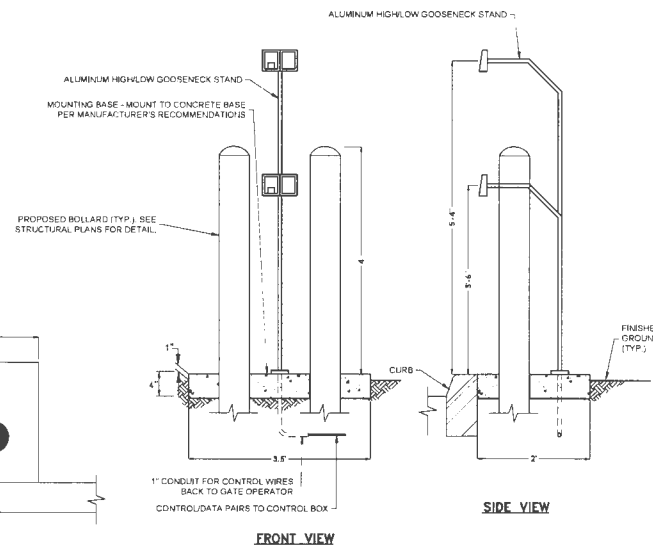
**SCHEMATIC MOTORIZED GATE EQUIPMENT LAYOUT DETAIL**  
N.T.S.



**PHOTO EYES WITH REFLECTERS SCHEMATIC**  
N.T.S.



**CARD READER PEDESTAL ASSEMBLY**  
N.T.S.



Prepared For  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA

Stamp



Client



**Passero Associates**  
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Project Manager: M. SMOLETSKY  
Civil Engineer: M. SMOLETSKY  
Designed by: J. LAZ

Revisions

No.	Description	Date

Drawing Title

**SITE DETAILS**

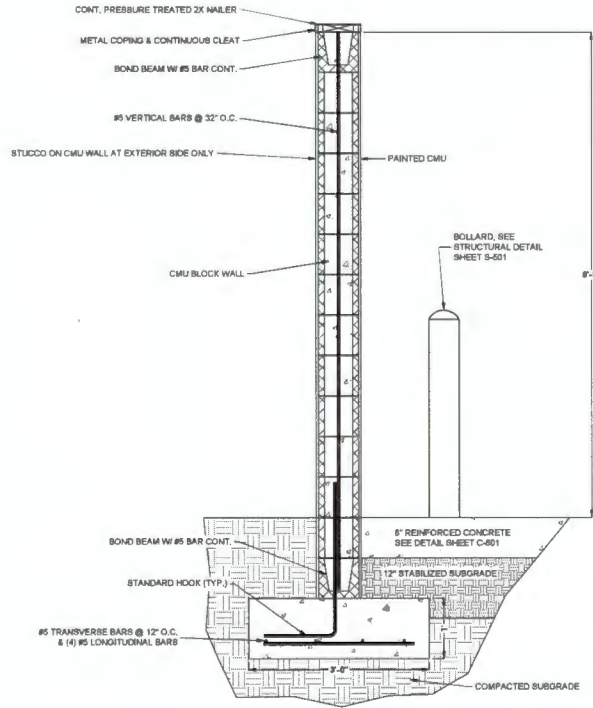
Project Location  
4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION  
Tallahassee, FL 32310  
County/City: ST. JOHNS COUNTY, FLORIDA

Project No.  
20213261.0012

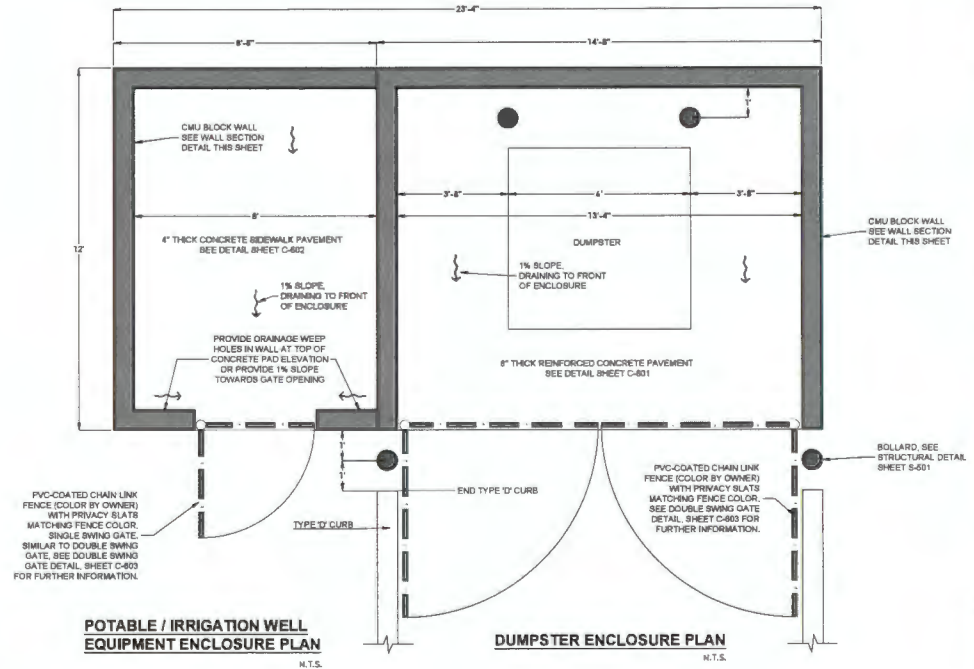
Drawing No.  
C-605

Date  
November 15, 2024

BID SET



**DUMPSTER & WELL EQUIPMENT ENCLOSURE WALL SECTION**  
N.T.S.



**POTABLE / IRRIGATION WELL EQUIPMENT ENCLOSURE PLAN**  
N.T.S.

**DUMPSTER ENCLOSURE PLAN**  
N.T.S.

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**  
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Designed by: J. LUZE

Revisions			
No.	Date	By	Description

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**SITE DETAILS**

Project Location:  
4830 MELANIE STREET  
BLC - FLAGLER ESTATES  
FIRE STATION  
Town/City:  
VIA SPRING  
County/State:  
ST. JOHNS COUNTY, FLORIDA

Project No.:  
20213261.0012

Drawing No.:  
C-606

Date:  
November 15, 2024

BID SET



**NOTE: STANDARD ST. JOHNS COUNTY UTILITIES MATERIAL AND INSTALLATION REQUIREMENTS SHALL APPLY; HOWEVER, ADMINISTRATIVE COORDINATION IS NOT REQUIRED DUE TO THE PROJECT SITE BEING OUTSIDE THE UTILITY SERVICE AREA.**

**GENERAL:**

- WHERE THESE NOTES CONFLICT WITH THE SPECIFICATIONS IN PART II OF THE MANUAL, PART I GOVERNS.
- TWO (2) COPIES OF THE SHOP DRAWINGS FOR MATERIALS NOT IN THE APPROVED MATERIALS MANUAL (EXCEPT APPROVED BY THE ENGINEER) SHALL BE SUBMITTED TO SUCO FOR REVIEW PRIOR TO SCHEDULING THE MANDATORY PRE-CONSTRUCTION CONFERENCE. THE REVIEW SHOP DRAWING REVIEW BY SUCO WILL BE COMPLETED WITHIN FIFTEEN (15) BUSINESS DAYS. SUBSEQUENT SHOP DRAWING REVIEWS WILL BE COMPLETED WITHIN TEN (10) BUSINESS DAYS.
- A PRE-CONSTRUCTION CONFERENCE IS REQUIRED WITH THE DEVELOPER, THE ENGINEER OF RECORD, THE UTILITY CONTRACTOR, AND THE SUCO PRIOR TO THE START OF ANY CONSTRUCTION. A PRE-CONSTRUCTION CONFERENCE WITH SUCO IS REQUIRED REGARDLESS OF OTHER AGENCIES REQUIREMENTS.
- ALL WATER, SEWER, AND/OR REUSE CONSTRUCTION SHALL BE PERFORMED BY A CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 48B, FLORIDA STATUTES. A COPY OF THE CONTRACTOR'S GENERAL LICENSE AND/OR UNDERGROUND UTILITY LICENSE SHALL BE PROVIDED AT THE PRE-CONSTRUCTION CONFERENCE.
- THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL LOCATIONS & ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL LOCATE, VERIFY, AND IDENTIFY ALL EXISTING UTILITIES AND UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO ANY EXCAVATING ACTIVITIES AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE AFFECTED UTILITY COMPANY, ENGINEER OF RECORD, COUNTY, AND SUCO.
- THE WATER, SEWER, AND/OR REUSE SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SUCO APPROVED CONSTRUCTION DRAWINGS AND SUCO APPROVED MATERIALS MANUAL. THE CONTRACTOR SHALL OBTAIN THE SUCO APPROVED CONSTRUCTION DRAWINGS OR SPECIFICATIONS, WITHOUT PRIOR AUTHORIZATION AND WITHOUT CHARGE, FROM THE SUCO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVIATION AND RESTORE IT TO THE APPROVED CONSTRUCTION DRAWING. ANY DEVIATION AND RESTORATION OF THE SUCO, AND/OR SERVICES FROM THE APPROVED DOCUMENTS WILL DELAY THE SUCO SUBMITTAL PROCESS.
- THE CONTRACTOR SHALL FIELD VERIFY THE CONNECTION POINTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER OF RECORD AND SUCO IMMEDIATELY.
- EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN LOCATED PER AVAILABLE RECORDS WITHOUT EXCAVATION.
- VERTICAL LOCATIONS OF ALL UTILITIES (EXCLUDING EXISTING STORMS) SHOWN ON PLANS HAVE BEEN PROFILE SURVEYED TO A BENCHMARK. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY IF ANY DISCREPANCIES ARE NOTICED.
- SHOULD CONDITIONS VARY FROM THOSE SHOWN ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SUCO PRIOR TO CONTINUING CONSTRUCTION.
- THE CONTRACTOR SHALL PROTECT SURVEY MARKERS, MONUMENTS, ETC. DURING CONSTRUCTION. THE CONTRACTOR SHALL RESTORE/REPLACE, AT NO ADDITIONAL EXPENSE TO THE OWNER, ANY DAMAGE DONE BY CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY HIS OPERATIONS. ANY DAMAGE SHALL BE RESTORED/REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION AND BUILDING PLACEMENT WITH ALL OTHER UTILITIES CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY UNDESIRABLE MATERIAL FROM HIS OPERATION. FURNISHING AND CONTRACTING SUITABLE REPLACEMENT MATERIAL SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- UNDESIRABLE MATERIALS UNDER WATER, SEWER, AND/OR REUSE MAINS SHALL BE REMOVED AND REPLACED WITH SELECTED BAGGELS PROPERLY COMPACTED TO 95% OF MAXIMUM DENSITY. BAGGELS SHALL BE COMPACTED IN A MINIMUM OF ONE-FOOT (1) LIFTS. DENSITY TESTS SHALL BE TAKEN AFTER COMPLETION OF EVERY LIFT.
- THE CONTRACTOR(S) SHALL NOTIFY ALL APPLICABLE UTILITIES COMPANIES, THE ENGINEER OF RECORD, AND THE PROPERTY OWNER 72 HOURS PRIOR TO ANY EXCAVATING ACTIVITIES, OR AS SPECIFIED BY THE UTILITY COMPANIES AND THE PARTISANS OBTAINED FOR THE WORK.
- THE ENGINEER OF RECORD AND SUCO SHALL BE GIVEN FIVE (5) BUSINESS DAYS NOTICE OF ALL REQUESTED MEETINGS AND/OR TESTING REQUIRED RELATED TO THE PROJECT.
- ALL WORK, MATERIALS, AND EQUIPMENT SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELEVANT ST. JOHNS COUNTY STANDARDS AND REQUIREMENTS AS WELL AS STATE AND LOCAL REGULATIONS.
- ALL UNDERGROUND UTILITY EQUIPMENT, MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF WATER, WASTEWATER, AND REUSE DESIGN STANDARDS & SPECIFICATIONS, ALL FEDERAL, STATE AND LOCAL REGULATIONS, AND THE APPROVED SITE PLANS.
- ALL UTILITY CROSSINGS SHALL COMPLY WITH FDEP REGULATIONS (DA 82-555.314, F.A.C.)
- 60# UNDERSTANDING TRESS SHALL BE PLACED A MINIMUM OF 7.5 FEET AWAY FROM THE EDGE OF PIPELINE TO THE TRESS CENTERLINE.
- ALL ROCK AND UNDESIRABLY SIZED STONES (AS DESCRIBED IN APPLICABLE ARMA AND ST. JOHNS COUNTY UTILITIES STANDARDS AND/OR PIPE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES) FOUND IN TRENCHES FOR NEW AND RELOCATED PIPE SHALL BE REMOVED TO A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE TRENCH. ALL ROCK AND UNDESIRABLE STONES SHALL BE PROVIDED FOR NEW AND RELOCATED PIPES. THE BACKFILL MATERIAL SHALL BE LAMINATED LAYERED AND COMPACTED TO 95% OF MAXIMUM DENSITY AND TO SUFFICIENT HEIGHT ABOVE SUCH PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE.

- FOR WATER, WASTEWATER, AND RECLAIMED MAINS SMALLER THAN 18 INCHES, THE MINIMUM AND MAXIMUM COVER SHALL BE 30 INCHES AND 36 INCHES, RESPECTIVELY, IN PAVED AREAS, OR AS REQUIRED WITH FOOT OR SLOTTED ROADWAYS OF 12 INCHES OR MORE. FOR MAINS 18 INCHES AND 42 INCHES, RESPECTIVELY, IN PAVED AREAS, OR AS REQUIRED WITH FOOT OR SLOTTED ROADWAYS OF 12 INCHES OR MORE, THE MINIMUM AND MAXIMUM COVER SHALL BE 42 INCHES AND 54 INCHES, RESPECTIVELY.
- WHERE FORCEMAINS, WATERMAINS, OR RECLAIMED WATERMAINS ARE LAD WITHOUT FITTINGS, THE BARMIUM DEFLECTION SHALL BE SORE OF THAT RECOMMENDED BY THE MANUFACTURER.
- FITTINGS SHALL BE USED AT LOCATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. ALL FITTINGS SHALL BE CAST IRON UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL UNDERGROUND VALVES SHALL BE INSTALLED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH TOP SET TO FINISH GRADE IN ACCORDANCE WITH SUCO DETAILS AND SPECIFICATIONS. ALL VALVES SHALL HAVE LOCATE MARKERS.
- CONTRACTOR IS RESPONSIBLE FOR PROPER NOTIFICATION OF RESPECTING AUTHORITIES BEFORE AND DURING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) BUSINESS DAYS NOTICE TO SUCO PRIOR TO SCHEDULING THE FINAL SUBMITTAL.

**NOTICE OF PROCEDURE:**

- ALL COMMERCIAL BUILDING PERMITS AND METERS PROCESSED THROUGH SUCO CUSTOMER SERVICE SHALL BE ACCOMPANIED BY A SET OF APPROVED CHAIN PLAN PLANS.
- ALL CONNECTIONS TO THE WATER, SEWER, AND/OR REUSE SYSTEM, PLUMBING, AND PRESSURE TESTS TO BE PERFORMED BY THE UTILITY CONTRACTOR OR ANOTHER LICENSED PROFESSIONAL ENGINEER. ALL TESTS SHALL BE COMPLETED WITHIN FIFTEEN (15) BUSINESS DAYS IN ADVANCE WITH THE SUCO. A SUCO INSPECTOR MUST BE PRESENT PRIOR TO THE CONSTRUCTION OF THE TEST.
- IT IS THE ENGINEER OF RECORD'S RESPONSIBILITY TO SECURE APPLICABLE PERMITS PRIOR TO CONSTRUCTION.
- THE PROPERTY OWNER SHALL PURCHASE THE WATER METER THROUGH THE SUCO OR PROJECTS THAT REQUIRE A WATER METER LARGER THAN ONE (1) INCH. THE ENGINEER OF RECORD SHALL INSTALL ALL METERS THREE (3) INCHES AND LARGER.
- WATER, SEWER, AND/OR REUSE LAID CONNECTION FEES SHALL BE PAID IN FULL AT THE TIME OF BUILDING PERMIT APPLICATION.
- ALL ON-SITE PRIVATE WATER, SEWER, AND/OR REUSE CONSTRUCTION BETWEEN THE METER AND BUILDING MAY BE INSPECTED BY THE SUCO TO ENSURE STANDARDS ARE MET.
- ALL REQUIREMENTS BY THE SUCO (I.E. FINAL INSPECTION, CORRECTION OF PUNCH LIST ITEMS, "AS-BUILT" CERTIFICATION OF COMPLETION, ETC) MUST BE SATISFIED PRIOR TO ISSUANCE OF CERTIFICATES OF OCCUPANCY.

**PRESSURE PIPE NOTES:**

- POTABLE AND RECLAIMED WATERMAINS AND FORCEMAINS 4" THROUGH 12" DIAMETER SHALL BE DR18, C900 PVC, WITH PUSH-ON, GASKETED, AND RESTRAINED JOINTS. DR11, C900 HOPE OR DR15, C900 FUSIBLE PVC (FPVC), POTABLE AND RECLAIMED WATERMAINS 4" THROUGH 12" DIAMETER SHALL BE DR10 CLASS 250 WITH PUSH-ON, GASKETED, AND RESTRAINED JOINTS. FUSIBLE PVC SHALL NOT BE USED FOR HOA.
- POTABLE AND RECLAIMED WATERMAINS AND FORCEMAINS 16" THROUGH 36" DIAMETER SHALL BE DR18, C900 PVC WITH PUSH-ON, GASKETED, AND RESTRAINED JOINTS OR DR11, C900 HOPE OR DR15, C900 FUSIBLE PVC (FPVC), POTABLE AND RECLAIMED WATERMAINS 16" THROUGH 36" DIAMETER SHALL BE DR10 CLASS 250 WITH PUSH-ON, GASKETED, AND RESTRAINED JOINTS. FUSIBLE PVC SHALL NOT BE USED FOR HOA.
- POTABLE AND RECLAIMED WATERMAINS LARGER THAN 36" DIAMETER SHALL BE DR18 CLASS 250.
- HOA UP TO 36" DIAMETER AND LESS THAN 300 FEET SHALL BE DR11, C900 HOPE. HOA UP TO 24" DIAMETER AND LONGER THAN 300 FEET SHALL BE DR9, C900 HOPE.
- 3" POTABLE AND RECLAIMED WATERMAINS AND FORCEMAINS SHALL BE DR9, HOPE (CTS).
- PIPE SHALL BE APPROPRIATELY COLOR CODED: BLUE-POTABLE WATER, GREEN-SEWER, AND PURPLE-RECLAIMED WATER.

**POTABLE WATER SYSTEMS NOTES:**

- ALL CHMB STOPS ARE TO BE BELL-TYPE WITH LOCKING CAPACITY, 1" MINIMUM.
- A FULL LENGTH OF WATERMAIN PIPE (USUALLY 30 FEET) SHALL BE CENTERED AT THE POINT OF CROSSING OF ALL WATER AND SEWER (INCLUDING STORM) LINES AT THE POINT OF CROSSING REGARDLESS OF THE VERTICAL SEPARATIONS.
- WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH THE APPROVAL OF THE ST. JOHNS COUNTY HEALTH DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED CONTAMINATION.
- NO CONNECTION TO EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED, DISINFECTED, CLEARED FOR SERVICE BY T&P AND ACCEPTED FOR MAINTENANCE BY THE SUCO.
- SLUICER CONNECTIONS WITH BACKFLOW PREVENTION DEVICE SHALL BE USED TO FILL OR FLUSH WATERMAINS.
- ALL NEW AND RELOCATED WATERMAIN PIPE, FITTINGS, VALVES, AND FIRE HYDRANTS SHALL BE IN CONFORMANCE WITH APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) AND SUCO STANDARDS.
- ALL NEW AND RELOCATED WATERMAIN PIPE AND FITTINGS WILL COMPLY WITH THE LATEST AWWA AND SUCO STANDARDS FOR LINED CONDUIT.

- ALL NEW AND RELOCATED WATERMAINS SHALL BE PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION.
- ALL NEW AND RELOCATED WATERMAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651 AND RULE 62-555.340, F.A.C.
- ALL NEW AND RELOCATED WATER SERVICES SHALL BE IN CONFORMANCE WITH THE STATE PLUMBING CODE AND SUCO STANDARDS.
- THE BACTERIOLOGICAL SAMPLE POINTS SHALL BE INDICATED ON THE AS-BUILT DRAWINGS. THE SAMPLE POINT NUMBERING AND STATIONING SHALL CORRESPOND TO THOSE ON THE BACTERIOLOGICAL SAMPLE CHAIN OF CUSTODY FORMS.

**WASTEWATER SYSTEM NOTES:**

- AN IMPROVED INTERIOR LINE IS REQUIRED ON RECEIVING MANHOLE, PUMP STATION VENTILATES AND MANHOLES WITH THREE OR MORE INVERTS.
- SANITARY SEWER LINES SHALL BE GREEN, 80R28 PIPE, AND CLEARLY MARKED ON THE PIPE.
- THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD AND SUCO ALL VIDEO LOGS, WRITTEN REPORTS, AND DEFLECTION TEST RESULTS FOR REVIEW AND APPROVAL.
- THE CONTRACTOR SHALL CONTACT SUCO PRE-TREATMENT DEPARTMENT AT (904) 289-2863 FOR INSPECTION AFTER INSTALLATION OF GREASE TRAPS, INTERCEPTORS, AND/OR OIL-WATER SEPARATORS.

**AS-BUILTS:**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRODUCE, SUBMIT AND OBTAIN APPROVAL OF IMPROVABLE "AS-BUILT" DRAWINGS FROM APPROPRIATE AGENCIES AS LISTED BELOW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETION OF THE "AS-BUILT" INFORMATION. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL PROVIDE TO SIX COPIES AND THE CAD FILE OF AS-BUILT DRAWINGS TO THE ENGINEER.
- A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO THE FINAL SUBMITTAL TWO (2) SETS OF PRELIMINARY "AS-BUILT" DRAWINGS AND COPY LOGS IN AUTOCAD FORMAT SHOWING THE REQUIRED INFORMATION, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD.
- FOR RECORD OR "AS-BUILT" DRAWINGS TO BE PREPARED BY THE CONTRACTOR AND SUBMITTED AT THE TIME OF THE REQUEST FOR A LETTER OF RELEASE TO PLACE THE CONSTRUCTION INTO SERVICE WILL CLEARLY DETECT THE VERTICAL CLEARANCES BETWEEN WATER (INCLUDING STORM) AND SEWER LINES AT ALL CROSSING AND PARALLEL RUNS WHERE THE HORIZONTAL SEPARATION IS LESS THAN TEN FEET. BY THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL (USUALLY 30 FEET) AT POINTS OF CROSSINGS WILL BE DOCUMENTED ON THE DRAWINGS AND ALL NECESSARY CONSTRUCTION MEASURES CLEARLY INDICATED IN CASES WHERE A MINIMUM OF 18 INCHES OF VERTICAL CLEARANCE BETWEEN THE WATER AND SEWER (INCLUDING STORM) LINES IS NOT POSSIBLE.
- AFTER SUCO HAS APPROVED PRELIMINARY "AS-BUILT", THREE (3) SETS OF AS-BUILT DRAWINGS (SIGNED AND SEALED) AND COPY LOGS IN AUTOCAD FORMAT SHOWING THE REQUIRED INFORMATION, SHALL BE SUBMITTED TO SUCO THROUGH ST. JOHNS COUNTY DISPOSAL SERVICES.

**STANDARD WATER/SEWER/RECLAIMED WATER SEPARATION STATEMENT:**

- THE CONTRACTOR SHALL INSTALL ALL MAINS IN ACCORDANCE WITH THE REQUIREMENTS OF RULE 62-555.314, F.A.C. BELOW THE CONTRACTOR SHALL NOTIFY SUCO IN ANY INSTANCES WHERE THE BELOW REQUIREMENTS CANNOT BE MET PRIOR TO INSTALLATION OF PUBLIC WATER SYSTEM MAINS.
- FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATERMAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING OTHER RAW, PARTIALLY TREATED, OR TREATED DRINKING WATER FROM TRENCH, LEAKS, AND SERVICES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.
- (1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCEMAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS:
- NEW OR RELOCATED, UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATERMAIN AND OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART OF CHAPTER 62-610, F.A.C.
  - NEW OR RELOCATED, UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATERMAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATERMAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATERMAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.
  - NEW OR RELOCATED, UNDERGROUND WATERMAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.000(2)(3), F.S., AND RULE 64E-6.002, F.A.C.
  - VERTICAL SEPARATION BETWEEN UNDERGROUND WATERMAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCEMAINS, AND RECLAIMED WATER PIPELINES.

- NEW OR RELOCATED, UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
- NEW OR RELOCATED, UNDERGROUND WATERMAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORM WATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATERMAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATERMAIN ABOVE THE OTHER PIPELINE.
- AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (1) AND (2) ABOVE, ONE FULL LENGTH OF WATERMAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATERMAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATERMAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORM WATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCEMAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C.
- SEPARATION BETWEEN WATERMAINS AND SANITARY OR STORM SEWER MANHOLES.
- NO WATERMAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SEWER OR STORMWATER MANHOLE.
- SEPARATION BETWEEN FIRE HYDRANT DRINKS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORM WATER FORCEMAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORM WATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART OF CHAPTER 62-610, F.A.C., AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCEMAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART OF CHAPTER 62-610, F.A.C., AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.000(2)(3), F.S., AND RULE 64E-6.002, F.A.C.

- EXCEPTIONS, WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY VIABLE, TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE CONTRACTOR SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:
  - WHERE AN UNDERGROUND WATERMAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATERMAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATERMAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE:
    - USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS DESCRIBED INTO RULE 62-555.340, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPE PIPELINE.
    - USE OF WELDED, FLUXED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATERMAIN OR THE OTHER PIPELINE; OR
    - USE OF WATERBENT CASING PIPE OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATERMAIN OR THE OTHER PIPELINE.
  - WHERE AN UNDERGROUND WATERMAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATERMAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE:
    - USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN.
    - USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASUREMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

**HYDROSTATIC TESTING NOTES:**

- AFTER ALL PRESSURE PIPES ARE INSTALLED, THE JOINTS COMPLETED, AND THE TRENCH BACKFILLED, THE NEWLY LAID PIPE AND APPURTENANCES SHALL BE SUBJECT TO A HYDROSTATIC TEST FOR A PERIOD OF AT LEAST TWO (2) HOURS. THE ENGINEER AND THE SUCO MUST BE NOTIFIED AT LEAST 72 HOURS BEFORE A TEST IS TO BE PERFORMED. TEST SHALL BE AS SET FORTH IN AWWA STANDARD C900. ANY LEAKS DETECTED SHALL BE CORRECTED AND THE SECTION OF PIPELINE RETESTED. THE TWO HOUR TEST PERIOD SHALL BEGIN WHEN ALL JOINTS HAVE BEEN DETERMINED TO BE WATER TIGHT. LEAKAGE SHALL BE LIMITED TO THAT ALLOWED SET FORTH IN SECTION 4 OF AWWA STANDARD C900 LATEST EDITION. HYDROSTATIC AND LEAKAGE TEST AND FLOW-DOWN (DURING OR DURING) MUST OCCUR BEFORE SAMPLING FOR BACTERIOLOGICAL TEST. THE MAXIMUM ALLOWABLE PRESSURE LOSS IS 5 PSI.



**ST. JOHNS COUNTY UTILITY DEPARTMENT**  
 100 WEST BAYVIEW  
 DE. ASSUMPTION, FLORIDA 32084-0846  
 Phone (904) 289-2863 • Fax (904) 289-2851

NO. SHEETS	1
SHEET NO.	01
DRAWING NO.	01-01.dwg

**GENERAL NOTES**

SEE STANDARD DRAWINGS FOR REFERENCE 2001-06-01



Prepared For:  
**ST. JOHNS COUNTY FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**  
 1000 West Bayview, Suite 200  
 De. Assumption, Florida 32084-0846  
 Principal-in-Charge Andrew Holbrook  
 Project Manager M. BAOLETARY  
 Civil Engineer M. BAOLETARY  
 Designer J. LEE

<b>Revisions</b>	
NO.	DESCRIPTION

DATE PLOTTED: 11/15/2024  
 PLOTTED BY: J. LEE  
 PLOTTER: HP PLOTTER  
 PLOT SCALE: 1" = 10'-0"

FOR MORE INFORMATION ON THESE DRAWINGS OR TO OBTAIN A COPY OF ANY OF OUR DRAWINGS, PLEASE CONTACT US AT (904) 289-2863.

Drawing Title  
**SITE DETAILS**

Project Location  
 4630 MELANIE STREET  
 SLC - FLAGLER ESTATES  
 FIRE STATION

Town  
 HASTINGS

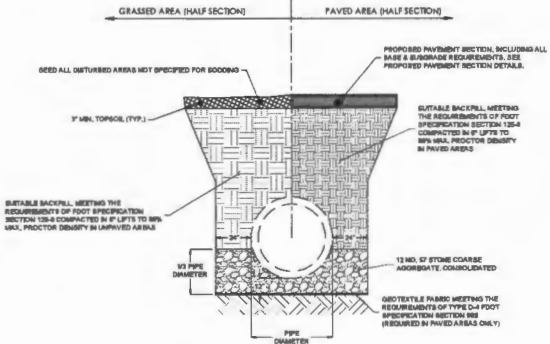
County  
 ST. JOHNS COUNTY, FLORIDA

Project No.  
 20213261.0012

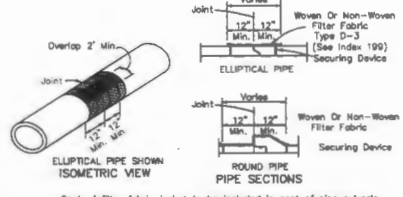
Drawing No.  
**C-608**

Date  
 November 15, 2024

BIO SET



**TYPICAL DRAINAGE PIPE INSTALLATION**  
N.T.S.



Coat of filter fabric jacket to be included in coat of pipe curbs.

FOR ALL PIPE TYPES - CONCRETE PIPE SHOWN

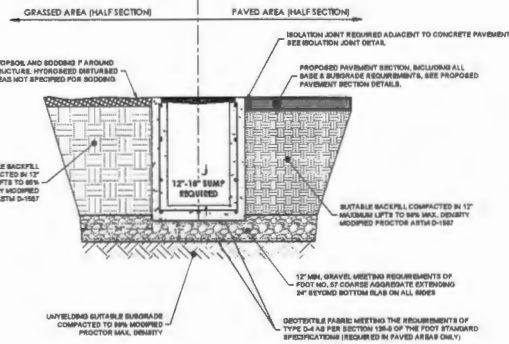
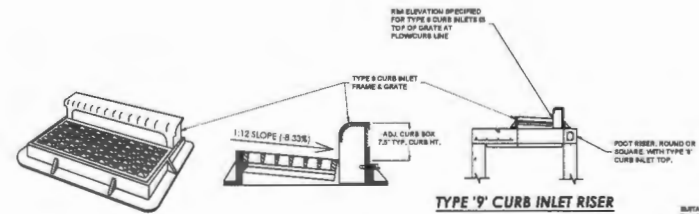
**FILTER FABRIC JACKET**

**FOOT DRAINAGE STRUCTURE NOTES:**

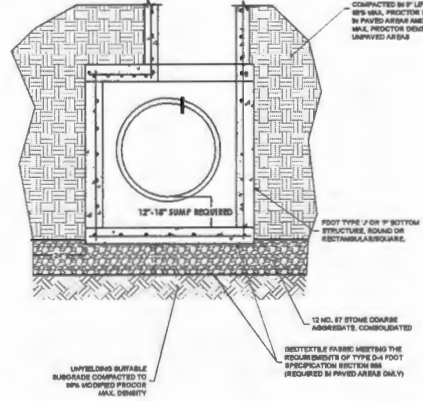
- ALL STRUCTURES SPECIFIED AS FOOT STRUCTURES SHALL MEET THE REQUIREMENTS OF THE CURRENT FOOT DESIGN STANDARD, INCLUDING THE INDICES LISTED BELOW, WITH MODIFICATIONS AS SHOWN IN THE DETAILS & SPECIFIED IN THE PLANS.
  - ALL STRUCTURES SPECIFIED AS FOOT TYPE J & P BOTTOM INLET & MANHOLE STRUCTURES SHALL MEET THE REQUIREMENTS OF INDEX 200 & INDEX 201. SLAB & WALL DIMENSIONS AND REINFORCEMENT SHALL BE PER FOOT INDEX 200, EXCEPT WHERE OTHERWISE SPECIFIED.
  - ALL DITCH BOTTOM INLET STRUCTURES SPECIFIED AS TYPE C, D, E, N, F & O, SHALL MEET THE RESPECTIVE REQUIREMENTS OF INDICES 232 AND 233.
  - ALL CURB INLET TOP TYPE P INLETS SHALL MEET THE REQUIREMENTS OF INDEX 214.
  - ALL MISER DITCH SECTION STRUCTURES SHALL MEET THE RESPECTIVE REQUIREMENTS OF INDICES 272 AND 273, AS SPECIFIED.
  - ALL U-TYPE ENDWALL STRUCTURES SHALL MEET THE INDICES 430-010 AND 430-011 AS APPLICABLE.
- COST OF ALL BAR REINFORCEMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE CORRESPONDING STRUCTURE. REINFORCEMENT SHALL HAVE A MINIMUM COVER OF 2" UNLESS OTHERWISE SHOWN.
- STRUCTURES TO BE APPROVED THROUGH SHOP DRAWING REVIEW PROCESS PRIOR TO FABRICATION.
- THE MISCELLANEOUS INSTALLATION REQUIREMENTS (SUCH AS FOR BEDDING, BACKFILL & COMPACTION) SHOWN IN THE FOOT DITCH BOTTOM INLET DETAIL, SHALL APPLY TO ALL FOOT DRAINAGE STRUCTURE INSTALLATIONS.

**GENERAL NOTES FOR DRAINAGE STRUCTURE & PIPE INSTALLATION:**

- TRENCH SHALL BE EXCAVATED TO A WIDTH SUFFICIENT TO PERMIT SATISFACTORY JOINING OF PIPE AND THOROUGH TAMPING OF BEDDING MATERIAL.
- IF UNSUITABLE OR UNYIELDING MATERIAL IS ENCOUNTERED AT PROPOSED DEPTH OF BOTTOM OF PIPE OR STRUCTURE, THEN THE MATERIAL SHALL BE UNDERCUT TO FOOT SPECIFICATIONS.
- DEWATER EXCAVATED TRENCH AS REQUIRED TO ALLOW FOR PROPER COMPACTION OF SOIL MATERIALS AND PROPER PLACEMENT OF PIPES AND STRUCTURES.
- PIPE BED SHALL BE SHAPED TO FIT THE PIPE AND SHALL HAVE RECESSES SHAPED TO RECEIVE THE BELL OF BELL AND SPLIT FOOT PIPE, IF APPLICABLE.
- IF THE EXCAVATED MATERIAL IS UNSUITABLE FOR TRENCH BACKFILL IT SHALL BE REPLACED WITH AASHTO A-1 OR A-3 CLASSIFIED SOIL MATERIAL, OR OTHERWISE AS APPROVED BY THE ENGINEER.



**PROPOSED FOOT DITCH BOTTOM INLET**  
N.T.S.



**FOOT TYPE 'J' & 'P' DRAINAGE STRUCTURES**  
N.T.S.

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



**Passero Associates**  
4630 Melanie Street S.L.C. - Flagler Estates Fire Station  
St. Johns County, Florida

Revisions	
No.	Description

**SITE DETAILS**

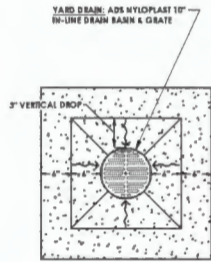
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**4630 MELANIE STREET  
S.L.C. - FLAGLER ESTATES  
FIRE STATION**

Project No.: **20213281.0012**

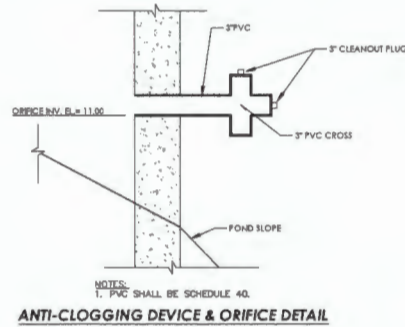
Drawing No.: **C-609**

Date: **November 15, 2024**

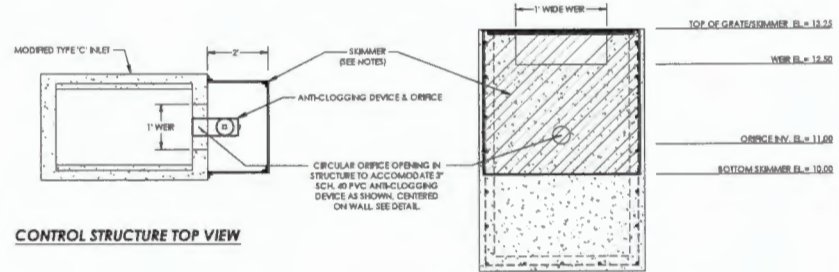
DRAWING NO. C-609 OF 100 PAGES. PROJECT NO. 20213281.0012. ST. JOHNS COUNTY, FLORIDA. DATE: NOVEMBER 15, 2024.



**PLAN VIEW**

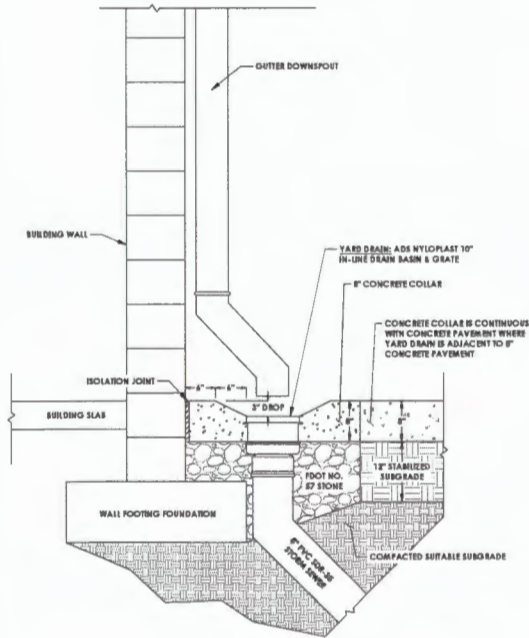


**ANTI-CLOGGING DEVICE & ORIFICE DETAIL**



**CONTROL STRUCTURE TOP VIEW**

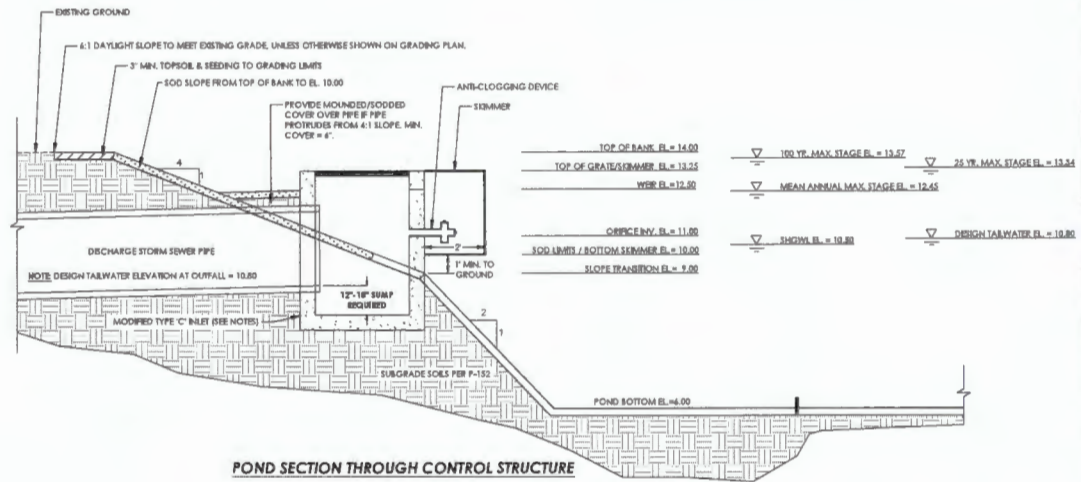
**CONTROL STRUCTURE FRONT VIEW**



**SECTION VIEW**

**DOWNSPOUT YARD DRAIN DETAIL**

N.T.S.



**POND SECTION THROUGH CONTROL STRUCTURE**

**POND/CONTROL STRUCTURE NOTES:**

1. SEE PLAN VIEW FOR PROPER ORIENTATION OF STRUCTURE IN POND RELATIVE TO WEIR, ORIFICE, SKIMMER, AND DISCHARGE PIPE.
2. THE MODIFIED TYPE 'C' INLET CONTROL STRUCTURE SHALL MEET THE REQUIREMENTS OF THE FDOT DESIGN STANDARDS.
3. CONTROL STRUCTURE BEDDING, BACKFILL & INSTALLATION SHALL BE AS DETAILED & SPECIFIED FOR FDOT DITCH BOTTOM INLETS.
4. THE SKIMMER SHALL BE 1/2" THICK ENVIRO-CFM, CHANNEL FACE MOUNT, MANUFACTURED BY ENVIRONMENTAL COMPOSITES INC., OR APPROVED EQUAL. ATTACHMENT & INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.
5. THE COST OF ALL BAR REINFORCEMENT SHALL BE INCLUDED IN THE PRICE BID FOR THE CORRESPONDING STRUCTURE. REINFORCEMENT SHALL HAVE A COVER OF 2" UNLESS OTHERWISE SHOWN.
6. STRUCTURES TO BE APPROVED THROUGH SHOP DRAWING REVIEW PROCESS PRIOR TO FABRICATION.

**POND & CONTROL STRUCTURE DETAILS**

N.T.S.

Prepared For:  
**ST. JOHNS COUNTY  
FIRE AND RESCUE**

ST. JOHNS COUNTY, FLORIDA



Client:



**Passero Associates**

4800 West State Hwy. 64th Ave. Suite 100-000  
West Palm Beach, FL 33411  
Principal-in-Charge: J. L. LEE  
Project Manager: M. SINGLETERARY  
Civil Engineer: M. SINGLETERARY  
Designed by: J. LEE

NO.	REV.	DATE	DESCRIPTION

1.000 PROJECTIONS: 10% OF THESE DRAWINGS ARE IN FULL SCALE. ALL OTHERS ARE IN THE SCALE INDICATED ON EACH SHEET. DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.

Drawing Title:

**SITE DETAILS**

Project Location:  
**4630 MELANIE STREET  
SLC - FLAGLER ESTATES  
FIRE STATION**

City/County:  
ST. JOHNS COUNTY, FLORIDA

Project No.:  
**20213261.0012**

Drawing No.:  
**C-610**

Date:  
**November 15, 2024**

BID SET



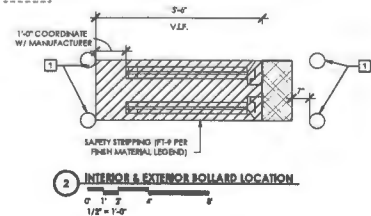
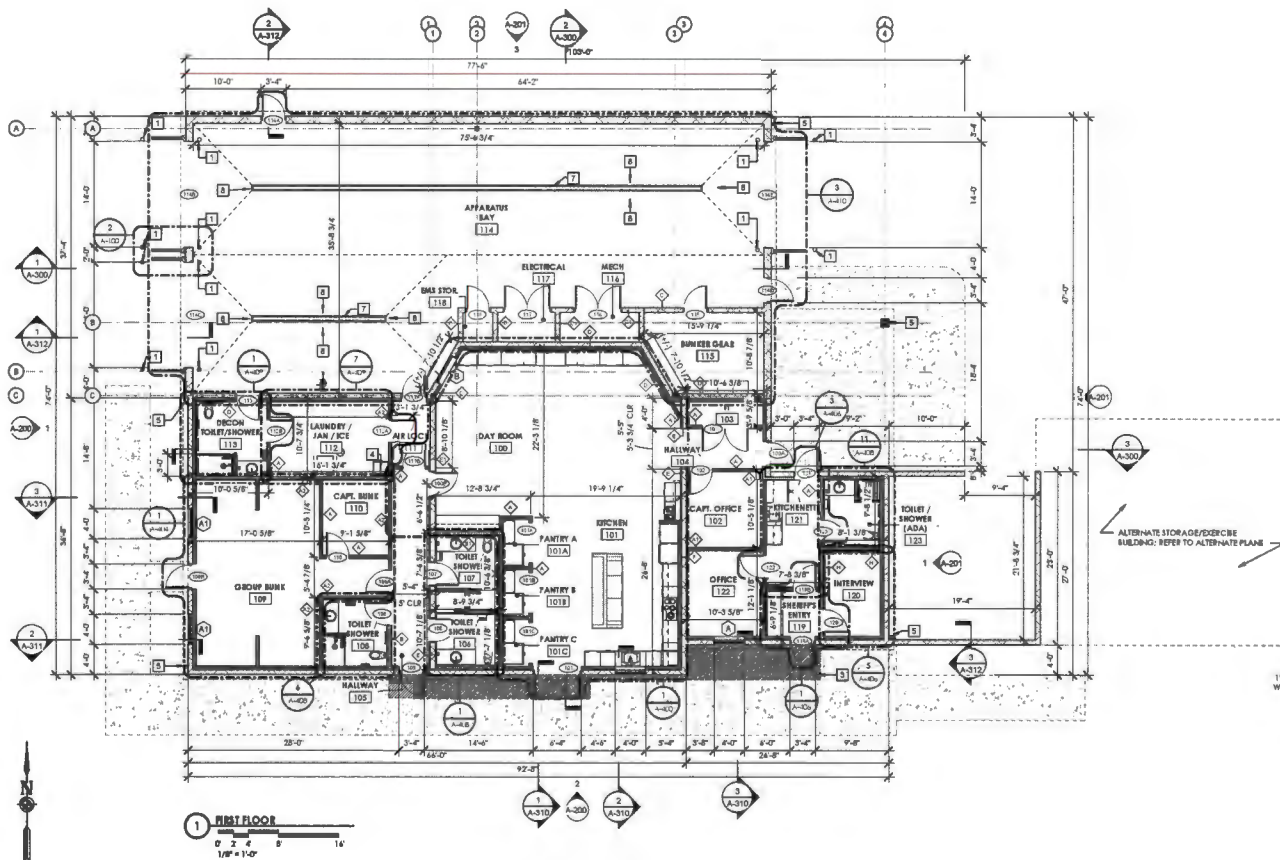
**FLOOR PLAN GENERAL NOTES:**

- REFER TO SHEET 0-404 FOR WALL TYPES.
- REFER TO SHEET A-404 FOR FURNITURE AND EQUIPMENT.
- DIVISION SYMBOLS
  - METAL STUD WALLS (INTERIOR) ARE DIMENSIONED TO CENTER OF STUD.
  - MASONRY WALLS ARE DIMENSIONED TO FACE OF MASONRY.
  - "CLIP" DIMENSIONS ARE TO THE FACE OF DRYWALL.
- CONTRACTOR SHALL PROVIDE BLOCKING FOR ALL WALL MOUNTED EQUIPMENT. POWER/FUNCTION BOXES SHALL BE AT ALL WALL MOUNTED P.V.E. COORDINATE FINAL LOCATION WITH OWNER.

**KEYNOTES**

1	BOLLARDS, TYP. SEE S-301 FOR DETAILS.
2	METAL CANOPY, SEE ROOF PLAN.
3	MOP SINK (COORDINATE WITH PLUMBING DRAWINGS).
4	METAL DOWN-SPOUT CONNECTED TO STORM PIP. CIVIL.
5	TRENCH DRAIN, TYP. REFER TO PLUMBING DRAWINGS.
6	DR. SLOPE MARK.

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



**PASSERO**  
engineering architecture

**PROMUS**

**ML+H**

CLIENT  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4075 GULF COAST HWY., SUITE 300  
ST. AUGUSTINE, FL 32082  
PHONE 781-9523  
PROJECT MANAGER: Judith Hoffmann  
DESIGNER: Judith Hoffmann  
DATE: 11/15/24

NO.	DATE	BY	DESCRIPTION

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**FLOOR PLAN**

**4630 MELANIE STREET**

**FIRE STATION #21 & SHERIFF'S OFFICE**

TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

20213261.0012

**A-100**

**BID SET**

**NOVEMBER 15, 2024**

**ROOF PLAN GENERAL NOTES:**

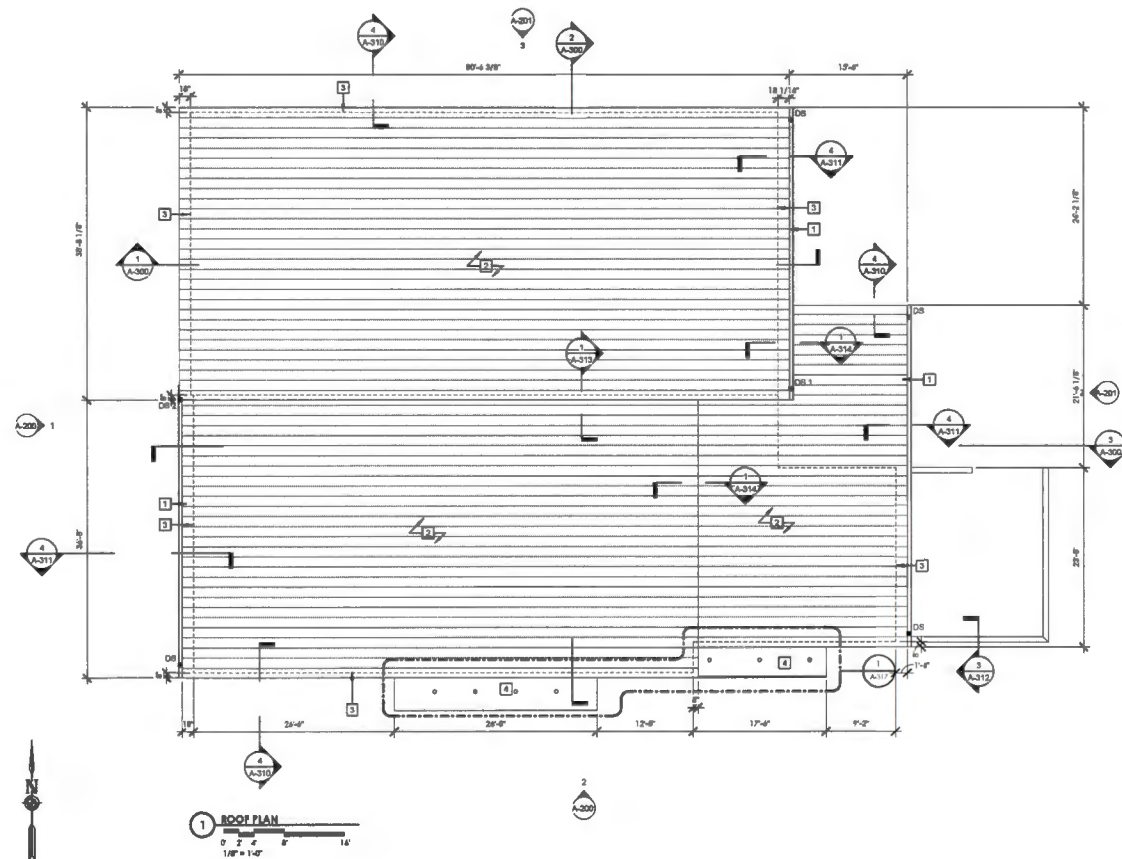
1. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION ON ITEMS PENETRATING THE ROOF. ALL FINISHING ELEMENTS SHALL BE PROPERLY FLASHED AND COORDINATED WITH ROOF CONSTRUCTION. ALL PENETRATING ELEMENTS SHALL BE COORDINATED BETWEEN RIBS OF THE STANDING SEAM ROOF.
2. ALL VISIBLE TERMINATIONS AT SLOPED ROOF SHALL BE PAINTED TO BLEND WITH FINAL ROOF FINISHES. LOCATE VENTS OUT OF VIEW WHERE POSSIBLE.
3. COORDINATE COLOR OF ALL ROOF VENTS, FLASHING AND REFERMISHED ACCESSORIES WITH FINAL COLOR OF ROOF.
4. PROVIDE ALUMINUM GUTTERS AND DOWNSPOUTS:
  - A. PROVIDE IF REFERMISHED BOX GUTTERS SLOPED TO STRAINERS AT DOWNSPOUTS.
  - B. DOWNSPOUTS SHALL BE 3/4" REFERMISHED. REFER TO CIVIL DRAWINGS FOR DETAIL.
5. FLASH SLOPED ROOF AND WALL INTERSECTIONS AT A MINIMUM OF 4" EACH WAY.
6. PROVIDE LIGHTNING PROTECTION PER SPECIFICATIONS.

- DS DOWNPOUT LOCATIONS GENERALLY SHOWN, CONNECTED TO STORM PER CIVIL (IC-416), COORDINATE LOCATIONS WITH ELEVATIONS.
- DS 1 DOWNPOUT LOCATIONS GENERALLY SHOWN, DRAIN ONTO ROOF, COORDINATE LOCATIONS WITH ELEVATIONS.
- DS 2 DOWNPOUT LOCATIONS GENERALLY SHOWN, DRAIN AT LOWER ROOF, CONNECTED TO STORM PER CIVIL (IC-416), COORDINATE LOCATIONS WITH ELEVATIONS.

**KEYNOTES**

1	CONDENSIBLE ALUMINUM GUTTER
2	METAL ROOF SYSTEM, TYP.
3	DASHED LINE REPRESENTS EXTERIOR FACE OF CMU WALL/NET BELOW
4	ALUMINUM FINISH CANOPY

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

1001 CALDWAY AVE., SUITE 202 ST. AUGUSTINE, FL 32084  
 PROJECT MANAGER: JOHN VILHELMSEN  
 PROJECT ARCHITECT: JOHN VILHELMSEN  
 PROJECT ENGINEER: JOHN VILHELMSEN

NO.	DATE	BY	DESCRIPTION

UNAUTHORIZED USE OF THESE DRAWINGS IS A VIOLATION OF FLORIDA ARCHITECTURE CODE AND MAY BE A VIOLATION OF OTHER APPLICABLE LAWS. THESE PLANS ARE COPY RIGHT PROTECTED.

**ROOF PLAN**

4630 MELANIE STREET

FIRE STATION # 21 & SHERIFF'S OFFICE

TOWN/CITY: Hastings STATE: Florida

COUNTY: St. Johns PROJECT NO.:

20213261.0012

NO. A-101

**BID SET**

NOVEMBER 15, 2024

**REFLECTED CEILING PLAN LEGEND:**

NOTE: REFER TO MEP DRAWINGS FOR ADDITIONAL INFORMATION ON LIGHT FIXTURES

- GYPSUM CEILING SYSTEM, PAINTED
- ACOUSTICAL CEILING TILE (2' x 2')
- STUCCO
- EXPOSED STRUCTURE, PAINTED COLOR TO BE SELECTED BY ARCHITECT
- 2x2 LED LIGHT FIXTURE
- SUSPENDED LINEAR LED LIGHT FIXTURE
- WALL-MOUNTED VANITY LIGHT FIXTURE
- RECESSED ROUND LED LIGHT FIXTURE
- SURFACE MOUNTED APP BAY FIXTURE
- CEILING FAN (WITHOUT CENTER LIGHT)
- CEILING FAN (WITH CENTER LIGHT)
- EXIT AND EMERGENCY
- WALL PACK
- EMERGENCY BUGYE
- MECHANICAL - ROUND DUCT (EXHAUST AIR)
- MECHANICAL - ROUND DUCT (SUPPLY AIR)
- MECHANICAL - SQUARE DUCT (RETURN AIR)
- MECHANICAL - SQUARE DUCT (EXHAUST AIR)
- MECHANICAL - SQUARE DUCT (SUPPLY AIR)
- MECHANICAL - SQUARE DUCT (RETURN AIR)
- MECHANICAL - SUPPLY DIFFUSER
- MECHANICAL - SUSPENDED UNIT HEATER
- MECHANICAL - PENDENT APPARATUS BAY LIGHT
- MECHANICAL - RETURN GRILLE
- MECHANICAL - CEILING CASSETTE

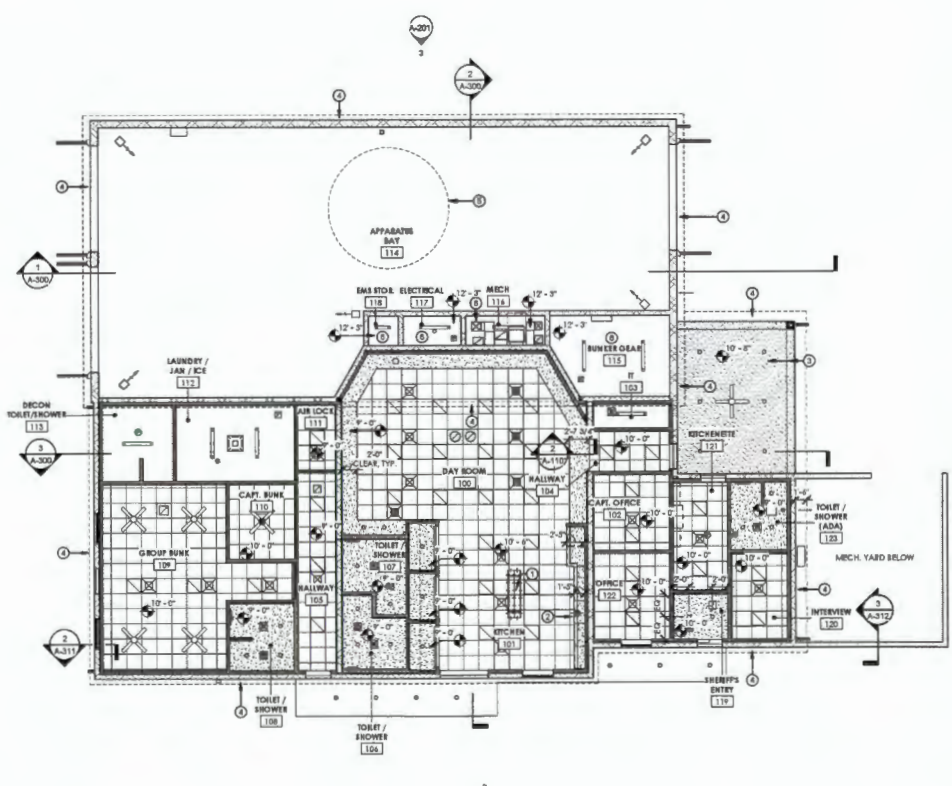
**REFLECTED CEILING PLAN GENERAL NOTES:**

1. REVIEW CEILING LAYOUT WITH ARCHITECT PRIOR TO INSTALLATION (INCLUDES LIGHTING FIXTURES)
2. REFER TO HVAC, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR ADDITIONAL INFORMATION ON EQUIPMENT AND FIXTURES.
3. ALL GYPSUM BOARD CEILING SHALL BE 5/8" THICK GYPSUM BOARD ON STEEL SUSPENSION SYSTEM WITH POP PANEL FINISH, UNLESS OTHERWISE NOTED. ALL GYPSUM BOARD CEILING TO BE F-48 SCOFFS TO BE PAINTED TO MATCH ADJACENT WALL UNLESS OTHERWISE NOTED. REFER TO INTERIOR ELEVATIONS, FINISH PLANS, LEDING, AND SCHEDULES.
4. MOISTURE RESISTANT GYPSUM WALL BOARD TO BE USED IN WET LOCATIONS (TOILET/SHOWER ROOMS). CONTINUOUS FIBER BOARD TO BE USED AT SHOWER LOCATIONS, TYP.
5. ALL PENETRATIONS AT RATED ASSEMBLIES MUST BE SEALED IN ACCORDANCE WITH THE LATEST EDITION OF THE FLORIDA BUILDING CODE.
6. ALL NOTED ELEVATIONS ARE ABOVE FINISH FLOOR OF THE SAME SPACE UNLESS OTHERWISE NOTED.
7. ALL EXPOSED STRUCTURE AND VISIBLE ITEMS ABOVE 12'-0" A.F.F. (PIPE, DUCT WORK, PIPING, ETC.) TO BE PAINTED. REFER TO FINISH SCHEDULE.
8. ALL SINGLE LIGHTS IN ROOMS TO BE CENTERED.
9. ALL LIGHTS IN CEILING TILES TO BE CENTERED IN TILE.
10. SEE ELECTRICAL FOR LIGHT FIXTURE SCHEDULE.
11. SEE MECHANICAL FOR HVAC LAYOUT.
12. COORDINATE SPRINKLER HEAD LOCATIONS, CENTERED IN ACT CEILING TILE AND ALIGNED WITH OTHER CEILING ELEMENTS.

**KEYNOTES**

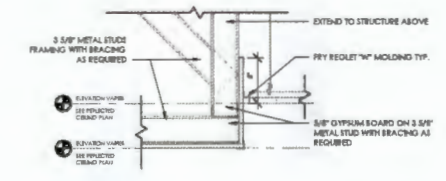
1	POT RACK CENTERED ON EICHEN ISLAND. PROVIDE RE RODS AND ADDITIONAL SUPPORT STRUCTURE AS REQUIRED FOR OVERHEAD ATTACHMENTS.
2	RESIDENTIAL HOOD WITH ANUL SYSTEM
3	STUCCO SOFFIT. SEE DETAILS.
4	METAL SOFFIT ABOVE
5	ALTERNATE #4 APPARATUS BAY FAN PER ELECTRICAL
6	CEILING TO RECEIVE CLOSED-CELL SPRAY FOAM WITH INSULACENT COATING

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



**1 REFLECTED CEILING PLAN**  
0 2 4 8 16  
1/8" = 1'-0"

**2 CEILING DETAIL - SOFFIT**  
0 2 4 8 1' 2'  
1 1/2" = 1'-0"



CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

NO.	DATE	BY	DESCRIPTION

**REFLECTED CEILING PLAN**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings

COUNTY: St. Johns STATE: Florida

20213261.0012

A-110

NOVEMBER 15, 2024

**BID SET**





**KEYNOTES**

- 1 STUD MOUNTED HALO LF BUILDING SIGNAGE - REFER TO 3/A-200
- 2 STANDING SEAM METAL ROOF - REFER TO WALL SECTIONS FOR DETAILS
- 3 ALIGN STUCCO CONTROL JOINT TO EDGE OF DOORS
- 4 14" x 14" LARGE MESH IMPACT LEVEL<sup>2</sup> - HOLD DOOR (EXTERIOR FOLDING) WITH TRACI HOOD - BASE OF ORIGINAL DOOR (ENGINEERING FOLD JOINT)
- 5 12" STUCCO BAND. REFER TO FINISH MATERIAL LEGEND.
- 6 STONE VENER ON CANTY. FINISH TO BE SELECTED BY ARCHITECT
- 7 METAL CANOPY PER A-317
- 8 ALUMINUM DOWNSPOUT. FINISH TO BE SELECTED BY ARCHITECT. SEE C-810 FOR DETAILS.
- 9 CONTINUOUS ALUMINUM GUTTER. FINISH TO BE SELECTED BY ARCHITECT.
- 10 BOLLARD. FINISH TO BE SELECTED BY ARCHITECT. SEE S-501 FOR DETAILS.
- 11 GPS ANTENNA FOR WIRELESS EXTENDER. REFER TO ELECTRICAL.
- 12 PAINT AT INTERIOR OF MESH YARD (TYP)
- 13 FILM ON DOOR TO SAY "MAIN ENTRANCE"
- 14 COPING REFER TO DETAILS ON A-312
- 15 PROVIDE EXTERIOR PHONE BOX OUTSIDE SHERIFF'S DOOR FOR ELECTRICAL. SIGNAGE TO READ SIMILAR TO "PLEASE USE PHONE TO CONNECT TO PRES/SHERIFF" (FINAL NOMENCLATURE TBD)

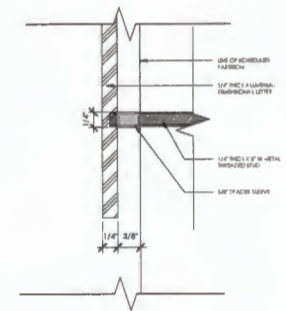
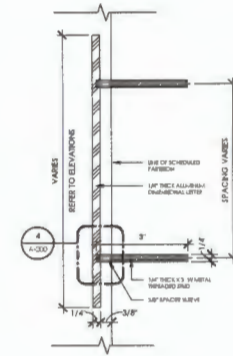
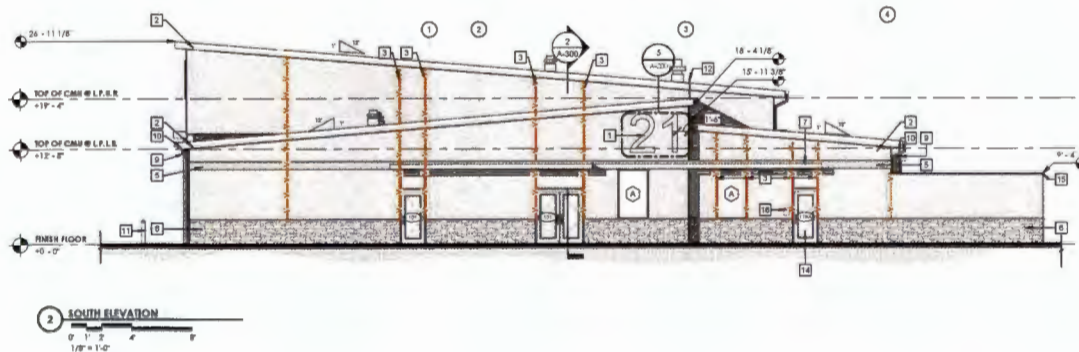
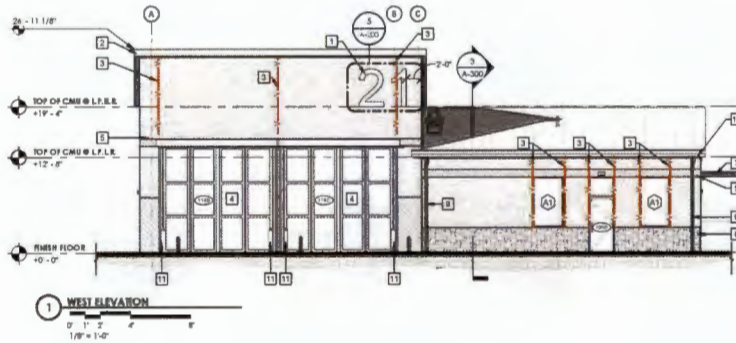
\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL DIMENSIONS.

**EXTERIOR ELEVATION GENERAL NOTES:**

1. ELEVATION NOTES ARE TYPICAL UNLESS OTHERWISE NOTED.
2. ALL EXPOSED COPINGS, FLASHING, DRIP EDGES, ETC. TO BE FINISHED.
3. PROVIDE STUCCO "Y" GROOVE CONTROL JOINT AS INDICATED. SEE A-314 FOR DETAILING.
4. STUCCO COLORS SHALL BE SELECTED BY OWNER. COLORS TO BE BASED ON SHERWIN WILLIAMS COLORS.
5. ALL EXTERIOR MECHANICAL TERMINATIONS TO BE PREFINISHED. COLOR AS SELECTED BY ARCHITECT (ROOF PENETRATIONS TO MATCH ROOF COLOR).

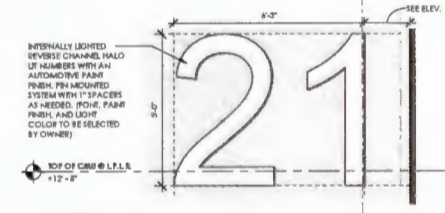
-  STUCCO CONTROL JOINT
-  STUCCO COLOR #1
-  STUCCO COLOR #2
-  STUCCO COLOR #3

**NOTE:**  
L.F.U.E. LOWER FLOOR, UPPER ROOF  
L.P.L.E. LOWER FLOOR, LOWER ROOF



**3 SECTION - DIMENSIONAL LETTER**  
0' 1' 2' 4' 8'  
1/8" = 1'-0"

**4 DETAIL - DIMENSIONAL LETTER ATTACHMENT**  
0' 1' 2' 4' 8'  
1/2" = 1'-0"



**5 SIGNAGE DETAIL**  
0' 1' 2' 4' 8'  
1/8" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4030 CANA DELA VILLA, SUITE 200  
ST. AUGUSTINE, FL 32087

NO.	DATE	BY	DESCRIPTION

**EXTERIOR ELEVATIONS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWNSHIP CITY: Newberry

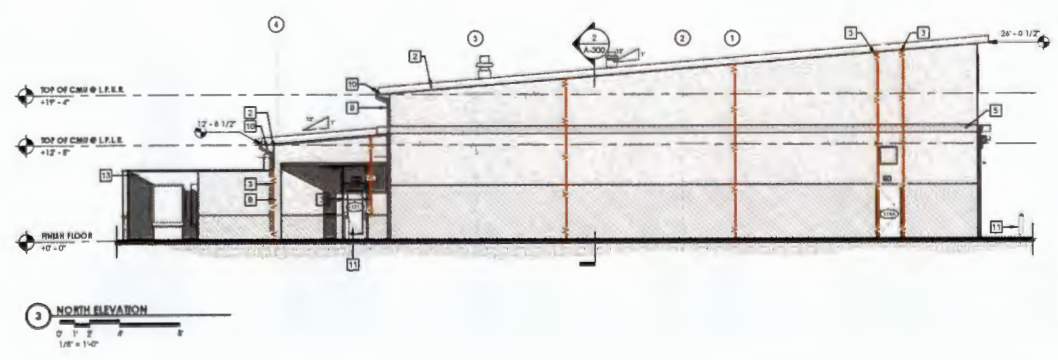
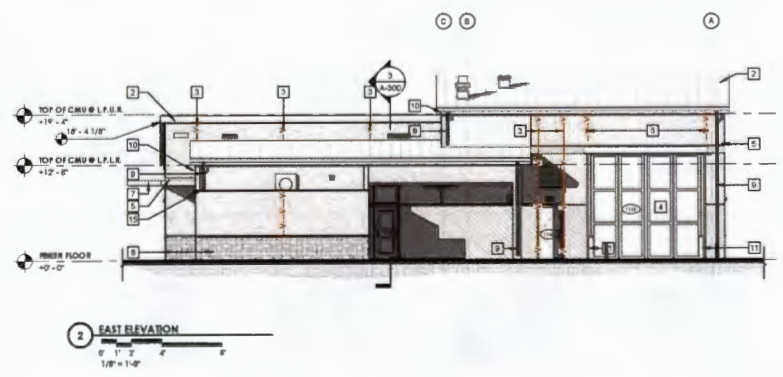
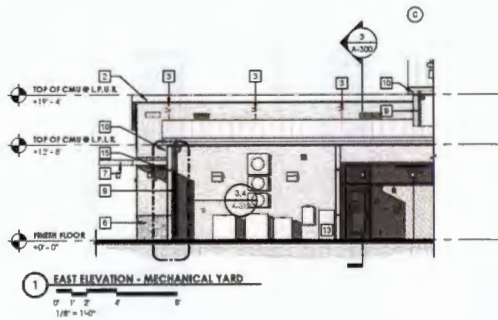
COUNTY: St. Johns STATE: Florida

20213261.0012

A-200

**BID SET**

NOVEMBER 15, 2024



**EXTERIOR ELEVATION GENERAL NOTES:**

1. ELEVATION NOTES ARE TYPICAL UNLESS OTHERWISE NOTED.
2. ALL EXPOSED COPING, FLASHING, DRAIN EDGES, ETC. TO BE FINISHED.
3. PROVIDE STUCCO 'V' GROOVE CONTROL JOINT AS INDICATED. SEE A-816 FOR DETAILING.
4. STUCCO COLORS SHALL BE SELECTED BY OWNER. COLORS TO BE BASED ON SHERWIN WILLIAMS COLORS.
5. ALL EXTERIOR MECHANICAL TERMINATIONS TO BE FINISHED. COLOR AS SELECTED BY ARCHITECT (ROOF PENETRATIONS TO MATCH ROOF COLOR).



**NOTE:**  
 L.P.U.R. LOWER POINT, UPPER ROOF  
 L.P.L.R. LOWER POINT, LOWER ROOF

**KEYNOTES**

1	STUD MOUNTED HALO LE BUILDING SIGNAGE - REFER TO S/A-200
2	STANDING SEAM METAL ROOF - REFER TO WALL SECTIONS FOR DETAILS
3	ALUMI STUCCO CONTROL JOINTS TO EDGE OF DOORS
4	1 1/2 x 1 1/2 LARGE IMPACT LEVEL 10" 4-FOLD DOOR (EXTERIOR HOLDING) WITH TRACK HOOD - BASE OF DESIGN DOOR (ENGINEERING FOUR FOLD 10")
5	1/2" STUCCO BAND, REFER TO FINISH MATERIAL LEGEND.
6	STONE VENEER ON CMU TYP. FINISH TO BE SELECTED BY ARCHITECT
7	METAL CANOPY PER A-317
8	ALUMINUM DOWNSPOUT, FINISH TO BE SELECTED BY ARCHITECT
9	ALUMINUM DOWNSPOUT, FINISH TO BE SELECTED BY ARCHITECT. SEE C-110 FOR DETAIL.
10	CONTINUOUS ALUMINUM GUTTER, FINISH TO BE SELECTED BY ARCHITECT
11	BOLLARD, FINISH TO BE SELECTED BY ARCHITECT. SEE S-801 FOR DETAILS.
12	GPS ANTENNA FOR WIRELESS EXTENDER, REFER TO ELECTRICAL
13	PAINT AT INTERIOR OF MECH. YARD (TYP.)
14	FLAM ON DOOR TO LAYMAN ENTRANCE
15	COPING REFER TO DETAILS ON A-312
16	PROVIDE EXTERIOR PHONE BOX OUTSIDE SHERIFFS DOOR PER ELECTRICAL. SIGNAGE TO READ SHERIFF TO PLEASE USE PHONE TO CONNECT TO RECEPTION (INTERNAL NOMENCLATURE TBD)

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



CLIENT:  
 ST. JOHNS COUNTY  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**Passero Associates**

PROJECT NUMBER: 20213261.0012  
 PROJECT ADDRESS: 4630 MELANIE STREET  
 PROJECT TYPE: FIRE STATION

NO.	DATE	BY	DESCRIPTION

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**EXTERIOR ELEVATIONS**  
  
 4630 MELANIE STREET  
 FIRE STATION #21 & SHERIFF'S OFFICE  
 TOWN/CITY: Hastings  
 COUNTY: St. Johns STATE: Florida

20213261.0012

A-201

**BID SET**

NOVEMBER 15, 2024

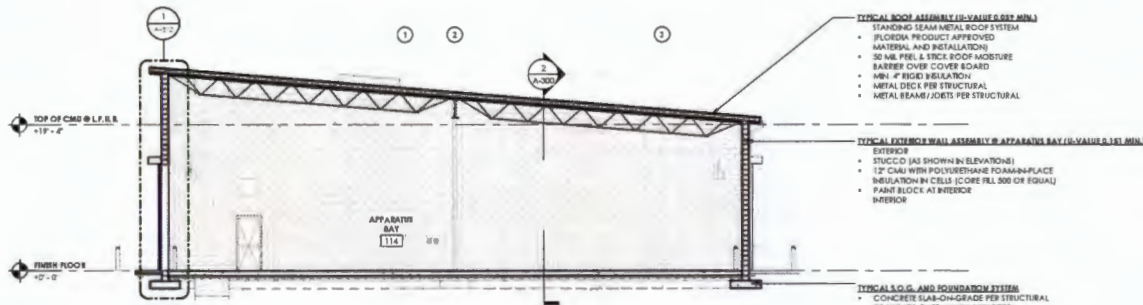
**BUILDING SECTION GENERAL NOTES:**

- BUILDING SECTION NOTES ARE TYPICAL UNLESS OTHERWISE NOTED. FOR ADDITIONAL INFORMATION REGARDING ASSEMBLIES, REFER TO WALL SECTIONS.
- ALL EXPOSED CORNERS, FLASHINGS, DRIP EDGES, ETC. TO BE PER-FINISHED.
- PROVIDE FLASHINGS AT ALL ROOF/WALL INTERSECTIONS (MIN. 4" EACH WAY) WITH SECAUT FLASHING AT THE LOW END OF EACH RUN TO DIVERT WATER AWAY FROM WALL WHEN WALL CONTIGUOUS BELOW BAILE.
- ALL EXTERIOR MECHANICAL TERMINATIONS TO BE PAINTED OR PER-FINISHED. COLOR AS SELECTED BY ARCHITECT.
- ALL EXPOSED METAL DECK AND FRAMING TO BE PAINTED COLOR SELECTED BY ARCHITECT.

**LEGEND:**

- 1-HR RATED FIRE BARRIER
- 0.5-HR RATED FIRE PARTITION

ENERGY CODE INFORMATION		
APPLICABLE CODES: 2023 FLORIDA BUILDING CODE - ENERGY CONSERVATION		
BUILDING DATA		
CURATE ZONE	2A	
THERMAL ENVELOPE:	REQUIRED	PROVIDED
ROOF	U-0.029	U-0.029
WALLS (ABOVE GRADE) @ OFFICE	MASS: U-0.151	U-0.077 MIN.
WALLS (ABOVE GRADE) @ APP BAY	MASS: U-0.151	U-0.151 MIN.
WALLS (BELOW GRADE)	N/A	N/A
FLOORS (B.O.G. - UNHEATED)	NB	NB
RESTRICTION REQUIREMENTS:	REQUIRED	PROVIDED
ROOF	U: 0.5 SHGC (P): 0.33 SHGC (S/W): 0.25	U: 0.5 SHGC (P): 0.33 SHGC (S/W): 0.25
ENTRANCE DOORS	U: 0.83 SHGC (P): 0.35 SHGC (S/W): 0.25	U: 0.83 SHGC (P): 0.33 SHGC (S/W): 0.25
OPaque DOORS	U-0.61	U-0.61



**TYPICAL ROOF ASSEMBLY (U-VALUE 0.027 MIN.)**

- STANDING SEAM METAL ROOF SYSTEM
- FLORIDA PRODUCT APPROVED MATERIAL AND INSTALLATION
- 30 MIL PEEL & STICK ROOF MOISTURE BARRIER OVER COVER BOARD
- MIN. 4" RIGID INSULATION
- METAL DECK PER STRUCTURAL
- METAL BEAMS/JOISTS PER STRUCTURAL

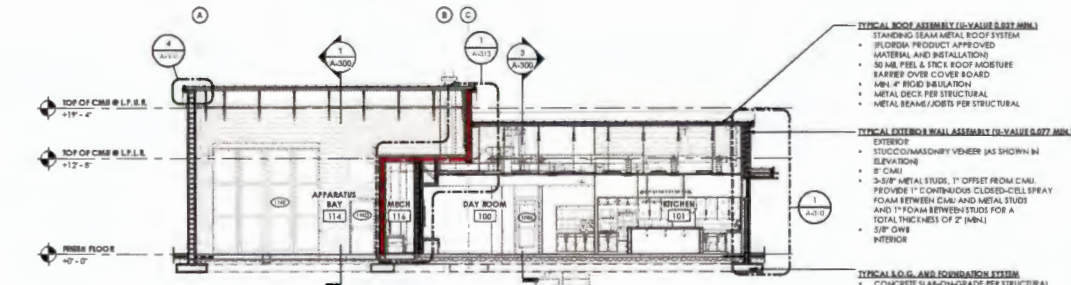
**TYPICAL EXTERIOR WALL ASSEMBLY @ APPARATUS BAY (U-VALUE 0.151 MIN.)**

- EXTERIOR
- STUCCO (AS SHOWN IN ELEVATIONS)
- 1" CMU WITH POLYURETHANE FOAM-IN-PLACE INSULATION IN CELLS (CORE FILL 50% OR EQUAL)
- PAINT BLOCK AT INTERIOR
- INTERIOR

**TYPICAL S.O.G. AND FOUNDATION SYSTEM**

- CONCRETE SLAB-ON-GRADE PER STRUCTURAL DRAWINGS OVER VAPOR RETARDER
- CLEAN-TERMITE TREATED FILL TYP. AT FOUNDATION
- GRADE, SLOPE AWAY FROM BUILDING
- FOUNDATION PER STRUCTURAL DRAWINGS

**1 APPARATUS BAY**  
1/8" = 1'-0"



**TYPICAL ROOF ASSEMBLY (U-VALUE 0.027 MIN.)**

- STANDING SEAM METAL ROOF SYSTEM
- FLORIDA PRODUCT APPROVED MATERIAL AND INSTALLATION
- 30 MIL PEEL & STICK ROOF MOISTURE BARRIER OVER COVER BOARD
- MIN. 4" RIGID INSULATION
- METAL DECK PER STRUCTURAL
- METAL BEAMS/JOISTS PER STRUCTURAL

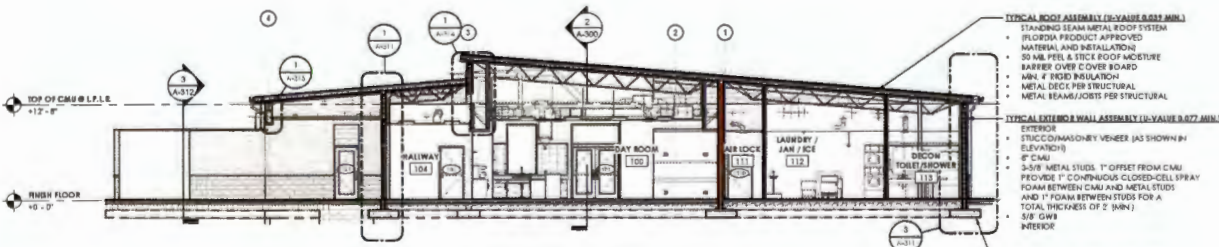
**TYPICAL EXTERIOR WALL ASSEMBLY (U-VALUE 0.077 MIN.)**

- EXTERIOR
- STUCCO/MASONRY VENEER (AS SHOWN IN ELEVATIONS)
- 2" CMU
- 3-3/8" METAL STUDS, 1" OFFSET FROM CMU
- PROVIDE 1" CONTINUOUS CLOSED-CELL SPRAY FOAM BETWEEN CMU AND METAL STUDS AND 1" FOAM BETWEEN STUDS FOR A TOTAL THICKNESS OF 2" (MIN.)
- 5/8" GWB
- INTERIOR

**TYPICAL S.O.G. AND FOUNDATION SYSTEM**

- CONCRETE SLAB-ON-GRADE PER STRUCTURAL DRAWINGS OVER VAPOR RETARDER
- CLEAN-TERMITE TREATED FILL TYP. AT FOUNDATION
- GRADE, SLOPE AWAY FROM BUILDING
- FOUNDATION PER STRUCTURAL DRAWINGS

**2 NORTH/SOUTH BUILDING SECTION**  
1/8" = 1'-0"



**TYPICAL ROOF ASSEMBLY (U-VALUE 0.027 MIN.)**

- STANDING SEAM METAL ROOF SYSTEM
- FLORIDA PRODUCT APPROVED MATERIAL AND INSTALLATION
- 30 MIL PEEL & STICK ROOF MOISTURE BARRIER OVER COVER BOARD
- MIN. 4" RIGID INSULATION
- METAL DECK PER STRUCTURAL
- METAL BEAMS/JOISTS PER STRUCTURAL

**TYPICAL EXTERIOR WALL ASSEMBLY (U-VALUE 0.077 MIN.)**

- EXTERIOR
- STUCCO/MASONRY VENEER (AS SHOWN IN ELEVATIONS)
- 2" CMU
- 3-3/8" METAL STUDS, 1" OFFSET FROM CMU
- PROVIDE 1" CONTINUOUS CLOSED-CELL SPRAY FOAM BETWEEN CMU AND METAL STUDS AND 1" FOAM BETWEEN STUDS FOR A TOTAL THICKNESS OF 2" (MIN.)
- 5/8" GWB
- INTERIOR

**TYPICAL S.O.G. AND FOUNDATION SYSTEM**

- CONCRETE SLAB-ON-GRADE PER STRUCTURAL DRAWINGS OVER VAPOR RETARDER
- CLEAN-TERMITE TREATED FILL TYP. AT FOUNDATION
- GRADE, SLOPE AWAY FROM BUILDING
- FOUNDATION PER STRUCTURAL DRAWINGS

**3 EAST/WEST BUILDING SECTION**  
1/8" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4630 MELANIE STREET, SUITE 200  
ST. AUGUSTINE, FL 32084  
PROJECT NUMBER: 2023-010  
DATE: 11/15/23

NO.	DATE	BY	DESCRIPTION

**BUILDING SECTIONS**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: HAWTHORNE STATE: FLORIDA  
COUNTY: ST. JOHNS

20213261.0012

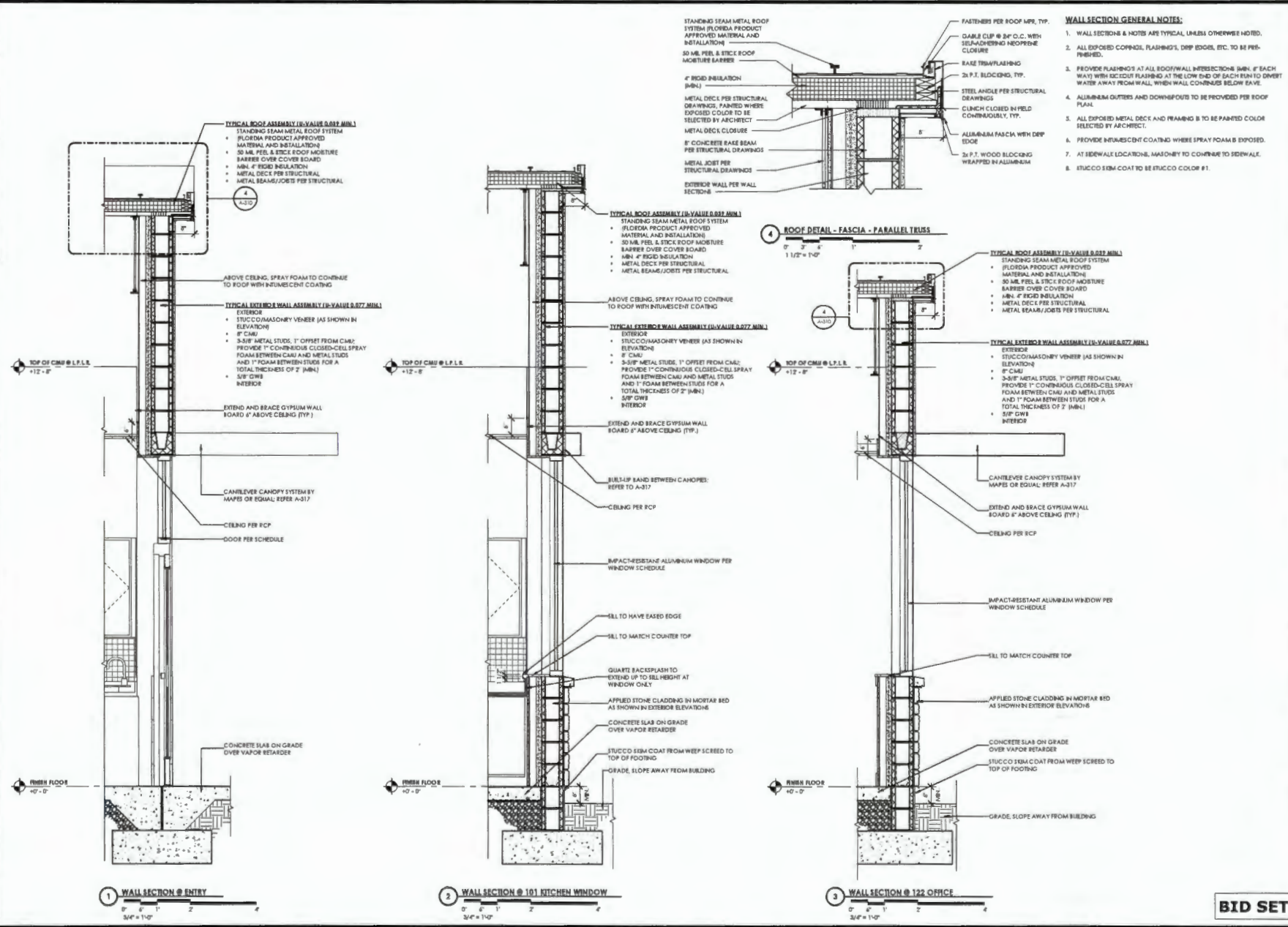
A-300

**BID SET**

NOVEMBER 15, 2024

**WALL SECTION GENERAL NOTES:**

1. WALL SECTIONS & NOTES ARE TYPICAL UNLESS OTHERWISE NOTED.
2. ALL EXPOSED CORNERS, FLASHINGS, DRIP EDGES, ETC. TO BE FINISHED.
3. PROVIDE FLASHINGS AT ALL ROOF/WALL INTERSECTIONS 3/16" IF EACH WAY WITH DECOD FLASHING AT THE LOW END OF EACH RUN TO DIVERGE WATER AWAY FROM WALL, WHEN WALL CONTIGUOUS BELOW EAVE.
4. ALUMINUM OUTLETS AND DOWNSPOUTS TO BE PROVIDED PER ROOF PLAN.
5. ALL EXPOSED METAL DECK AND FRAMING IS TO BE PAINTED COLOR SELECTED BY ARCHITECT.
6. PROVIDE INTRINSIC COATING WHERE SPRAY FOAM IS EXPOSED.
7. AT SIDEWALL LOCATIONS, MASONRY TO CONTINUE TO SIDEWALL.
8. STUCCO SEMI COAT TO BE STUCCO COLOR #1.



CLIENT  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4099 ALMA ROAD, SUITE 300 ST. AUGUSTINE, FL 32084  
PH: 904.829.1111 FAX: 904.829.1112  
PROJECT: 20213261.0012 ARCH: ML+H  
DATE: 11/15/2021

NO.	DATE	BY	DESCRIPTION

**WALL SECTIONS**

**4630 MELANIE STREET**

**FIRE STATION #21 & SHERIFF'S OFFICE**

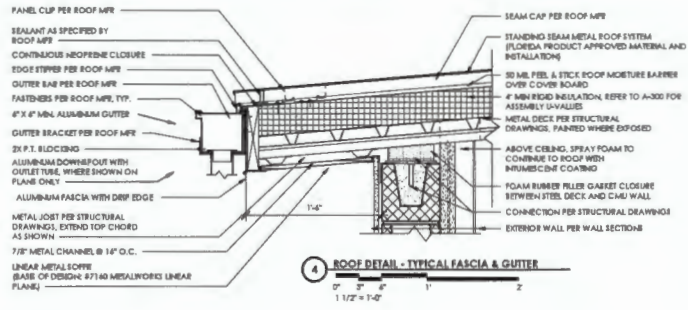
THURGOOD LAWRENCE  
COUNTY: St. Johns STATE: Florida

20213261.0012

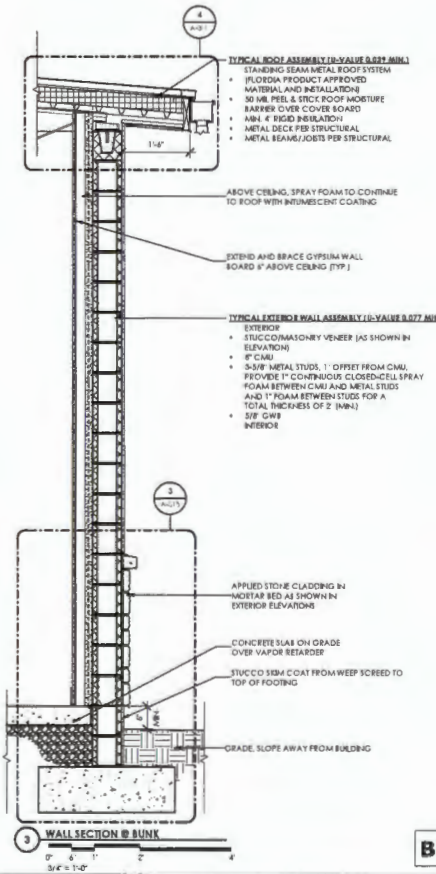
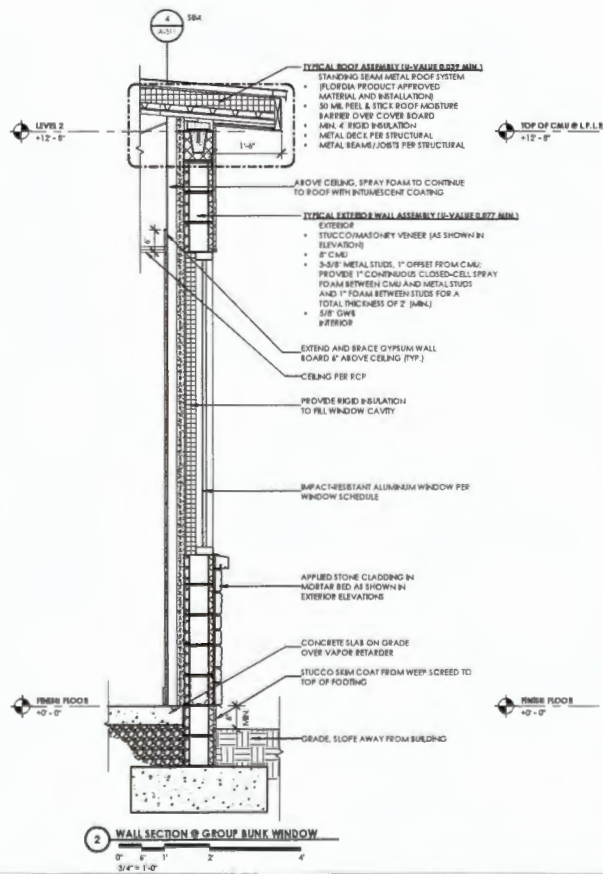
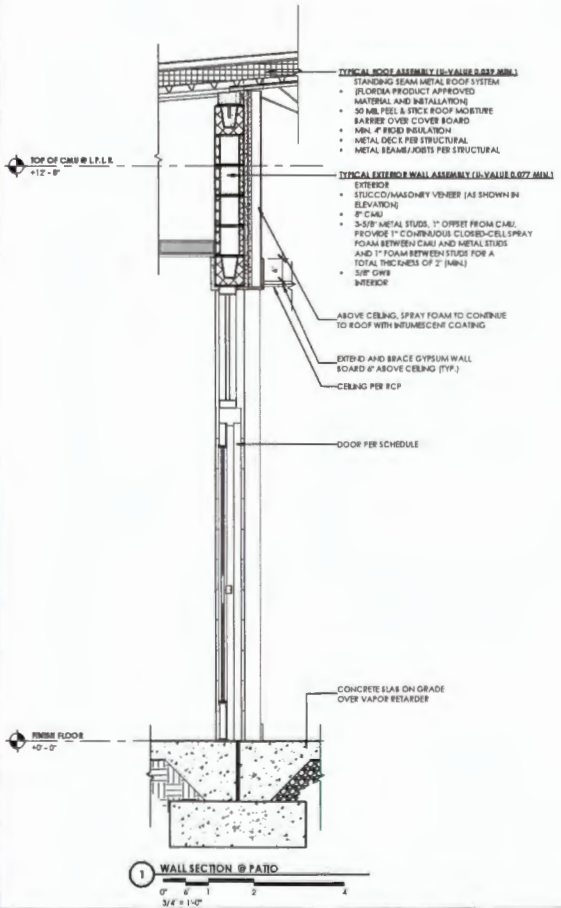
**A-310**

**BID SET**

NOVEMBER 15, 2024



- WALL SECTION GENERAL NOTES:**
1. WALL SECTIONS & NOTES ARE TYPICAL, UNLESS OTHERWISE NOTED.
  2. ALL EXPOSED COPING, FLASHING'S, DRIP EDGES, ETC. TO BE PRE-FINISHED.
  3. PROVIDE FLASHING'S AT ALL ROOF/WALL INTERSECTIONS (MIN. 4" EACH WAY) WITH DRAINOUT FLASHING AT THE LOW END OF EACH RUN TO DRAIN WATER AWAY FROM WALL, WHEN WALL CONTINUES BELOW EAVE.
  4. ALUMINUM GUTTERS AND DOWNPOUTS TO BE PROVIDED PER ROOF PLAN.
  5. ALL EXPOSED METAL DECK AND FRAMING IS TO BE PAINTED COLOR SELECTED BY ARCHITECT.
  6. PROVIDE INTUMESCENT COATING WHERE SPRAY FOAM IS EXPOSED.
  7. AT SIDEWALL LOCATIONS, MASONRY TO CONTINUE TO SIDEWALL.
  8. STUCCO ISBA COAT TO BE STUCCO COLOR #1.



**BID SET**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**  
4700 GOLF COURSE BLVD. SUITE 302  
ST. AUGUSTINE, FL 32084  
PHONE: 784-4100  
FAX: 784-4101  
PROJECT MANAGER: Justin Williams  
DESIGNER: Nathan Smith

NO.	DATE	BY	DESCRIPTION

**WALL SECTIONS**

**4630 MELANIE STREET**

**FIRE STATION #21 & SHERIFF'S OFFICE**

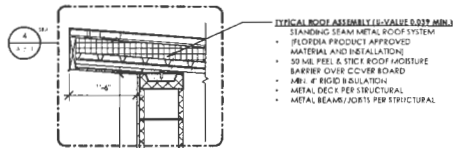
TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

**20213261.0012**

**A-311**

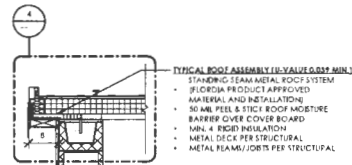
**NOVEMBER 15, 2024**





**TYPICAL ROOF ASSEMBLY (U-VALUE 0.031 MIN.)**

- STANDING SEAM METAL ROOF SYSTEM
- FLORIDA PRODUCT APPROVED MATERIAL AND INSTALLATION
- 50 MIL PEEL & STICK ROOF MOISTURE BARRIER OVER COVER BOARD
- 1/2" RIGID INSULATION
- METAL DECK PER STRUCTURAL
- METAL BEAM/JOISTS PER STRUCTURAL



**TYPICAL ROOF ASSEMBLY (U-VALUE 0.031 MIN.)**

- STANDING SEAM METAL ROOF SYSTEM
- FLORIDA PRODUCT APPROVED MATERIAL AND INSTALLATION
- 50 MIL PEEL & STICK ROOF MOISTURE BARRIER OVER COVER BOARD
- 1/2" RIGID INSULATION
- METAL DECK PER STRUCTURAL
- METAL BEAM/JOISTS PER STRUCTURAL

**TYPICAL EXTERIOR WALL ASSEMBLY @ APPARATUS BAY (U-VALUE 0.151 MIN.)**

EXTERIOR

- STUCCO (AS SHOWN IN ELEVATIONS)
- 1 1/2" CMU WITH POLYURETHANE FOAM IN PLACE INSULATION IN CELLS (CORE FILL 50% OR EQUAL)
- PAINT BLOCK AT INTERIOR INTERIOR

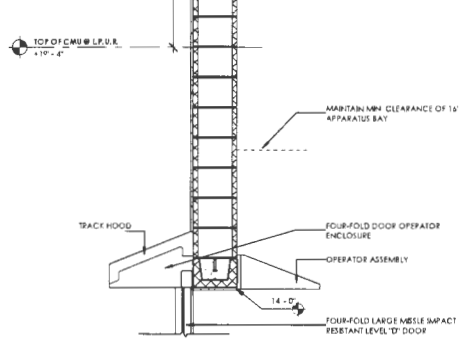
**TYPICAL EXTERIOR WALL ASSEMBLY @ APPARATUS BAY (U-VALUE 0.151 MIN.)**

EXTERIOR

- STUCCO (AS SHOWN IN ELEVATIONS)
- 1 1/2" CMU WITH POLYURETHANE FOAM IN PLACE INSULATION IN CELLS (CORE FILL 50% OR EQUAL)
- PAINT BLOCK AT INTERIOR INTERIOR

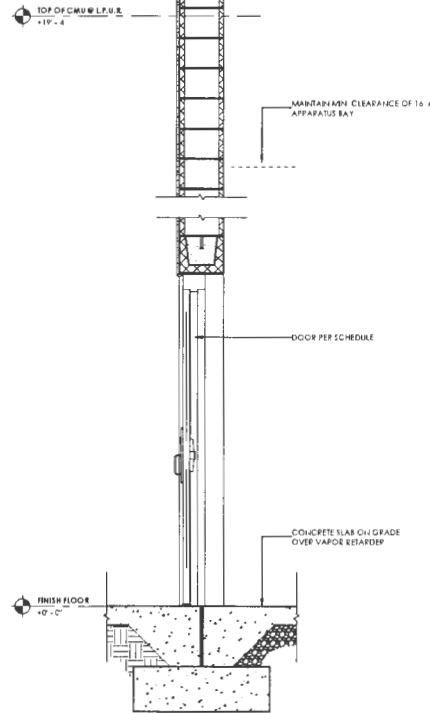
**WALL SECTION GENERAL NOTES:**

1. WALL SECTIONS & NOTES ARE TYPICAL UNLESS OTHERWISE NOTED
2. ALL EXPOSED COPINGS, FLASHINGS, DRIP EDGES, ETC. TO BE PREFINISHED.
3. PROVIDE FLASHINGS AT ALL ROOF/WALL INTERSECTIONS (MIN. 5" EACH WAY) WITH ESCAPE FLASHING AT THE LOW END OF EACH RUN TO DIVERGE WATER AWAY FROM WALL WHEN WALL CONTIGUES BELOW GRADE.
4. ALUMINUM GUTTERS AND DOWNSPOUTS TO BE PROVIDED PER ROOF PLAN.
5. ALL EXPOSED METAL DECK AND FRAMING IS TO BE PAINTED COLOR SELECTED BY ARCHITECT.
6. PROVIDE INTRUSION COATING WHERE SPRAY FOAM IS EXPOSED.
7. AT SIDEWALL LOCATION, MASONRY TO CONTINUE TO SIDEWALL.
8. STUCCO FINISH COAT TO BE STUCCO COLOR #1.



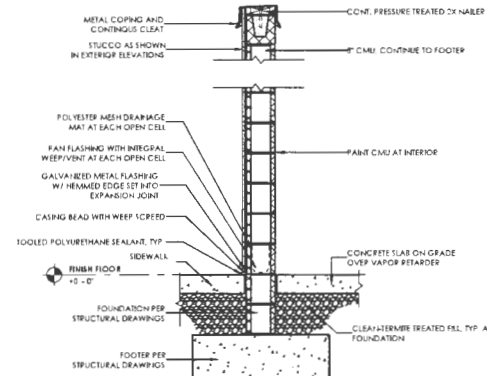
**1 WALL SECTION @ APPARATUS BAY - 4 FOLD DOOR**

0' 2' 4' 3/4" = 1'-0"



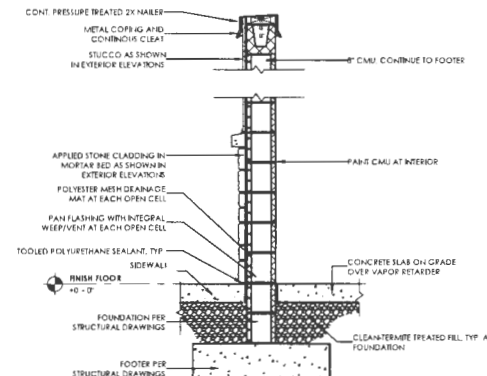
**2 WALL SECTION @ APPARATUS BAY - MAN DOOR**

0' 2' 4' 3/4" = 1'-0"



**3 MECH. YARD W/ STUCCO**

0' 2' 4' 3/4" = 1'-0"



**4 MECH. YARD W/ ADHERED MASONRY**

0' 2' 4' 3/4" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

1000 W. UNIVERSITY BLVD., SUITE 100  
ST. AUGUSTINE, FL 32084  
PHONE: 904.826.1111  
FAX: 904.826.1112  
WWW.PASSEROASSOCIATES.COM

NO.	DATE	BY	DESCRIPTION

**WALL SECTIONS**

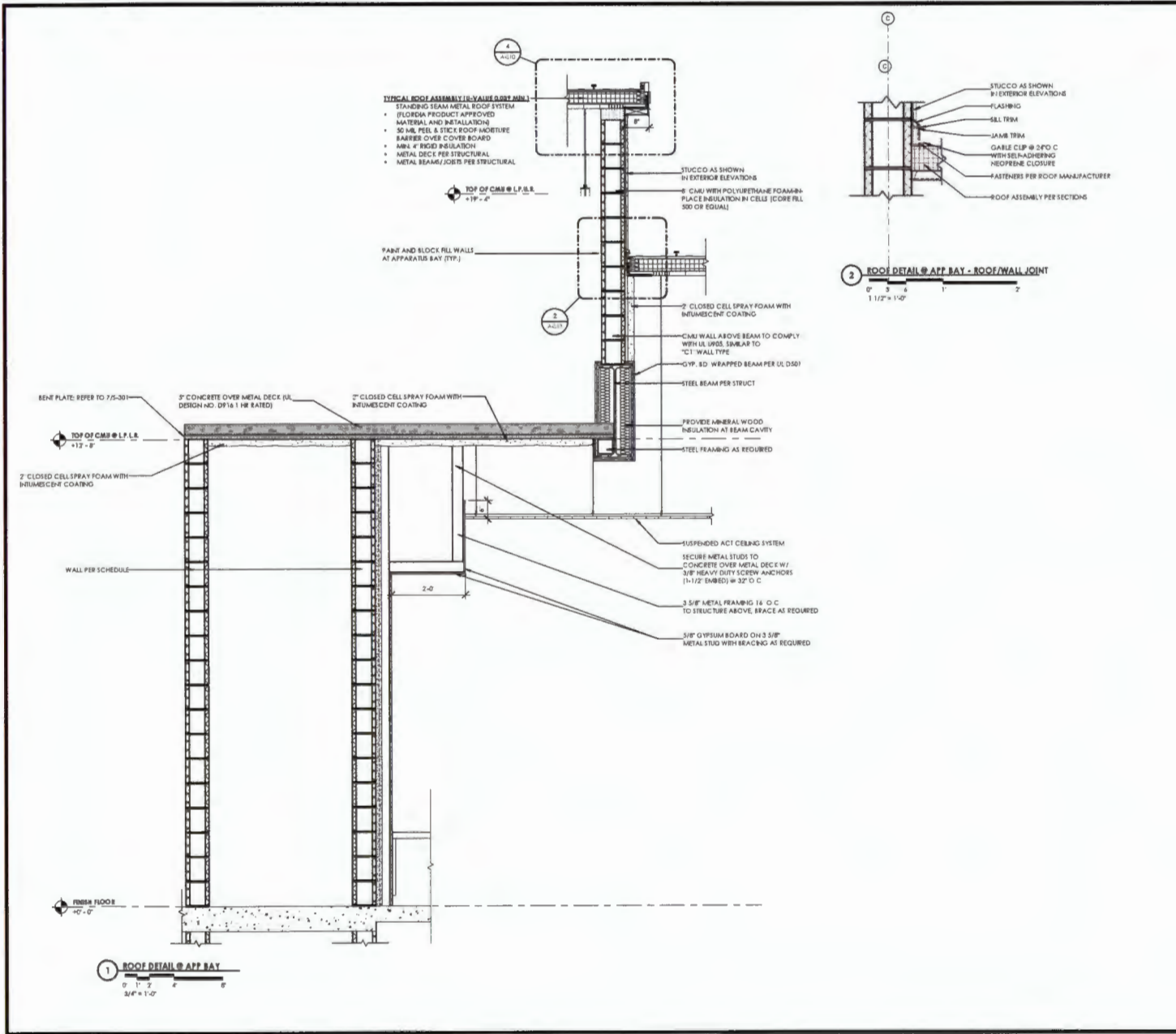
4630 MELANIE STREET  
FIRE STATION # 21 & SHERIFF'S OFFICE  
TOWN/CITY: HAWTHORN  
COUNTY: St. Johns STATE: Florida

20213261.0012

A-312

NOVEMBER 15, 2024

**BID SET**



- WALL SECTION GENERAL NOTES:**
1. WALL SECTIONS & NOTES ARE TYPICAL, UNLESS OTHERWISE NOTED.
  2. ALL EXPOSED COPING, FLASHING'S, DWP EDGES, ETC. TO BE PER-FINISHED.
  3. PROVIDE FLASHING'S AT ALL ROOF/WALL INTERSECTIONS (MIN. 4\"/>

**PASSERO**  
engineering architecture

**PROMUS**  
**ML+H**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4050 COLLEGE AVE., SUITE 300    32084-1004  
ST. AUGUSTINE, FL, USA

NO.	DATE	BY	DESCRIPTION

**WALL SECTIONS**

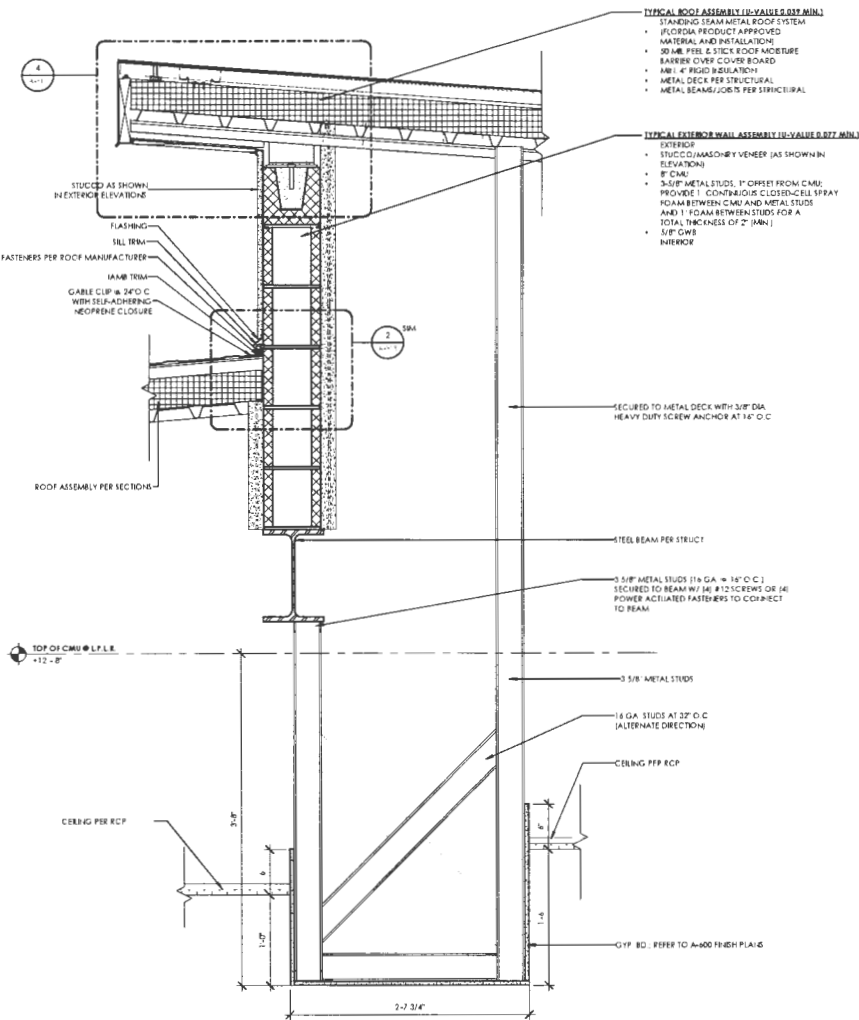
4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings  
COUNTY: St. Johns    STATE: Florida

20213261.0012

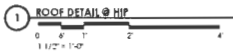
A-313

**BID SET**

NOVEMBER 15, 2024



TOP OF CMU @ F.L.E.  
+12'-0"



**WALL SECTION GENERAL NOTES:**

1. WALL SECTIONS & NOTES ARE TYPICAL UNLESS OTHERWISE NOTED
2. ALL EXPOSED COPINGS, FLASHINGS, DRIP EDGES, ETC. TO BE PREFINISHED.
3. PROVIDE FLASHINGS AT ALL ROOF/WALL INTERSECTIONS (MIN. 6" EACH WAY) WITH KICK OUT FLASHING AT THE LOW END OF EACH RUN TO DIVERGE WATER AWAY FROM WALL, WHEN WALL CONTIGUOUS BELOW EAVE.
4. ALUMINUM GUTTERS AND DOWNSPOUTS TO BE PROVIDED PER ROOF PLAN.
5. ALL EXPOSED METAL DECK AND FRAMING TO BE PAINTED COLOR SELECTED BY ARCHITECT.
6. PROVIDE INFLUESCENT COATING WHERE SPRAY FOAM IS EXPOSED.
7. AT SIDEWALK LOCATIONS, MASONRY TO CONTINUE TO SIDEWALK.
8. STUCCO SFM COAT TO BE STUCCO COLOR #1.

**PASSERO**  
engineering architecture

**PROMUS**

**ML+H**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

20213261.0012  
NOV 15 2024

NO.	DATE	BY	DESCRIPTION

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**WALL SECTIONS - ROOF DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWN/CITY: Hastings STATE: Florida

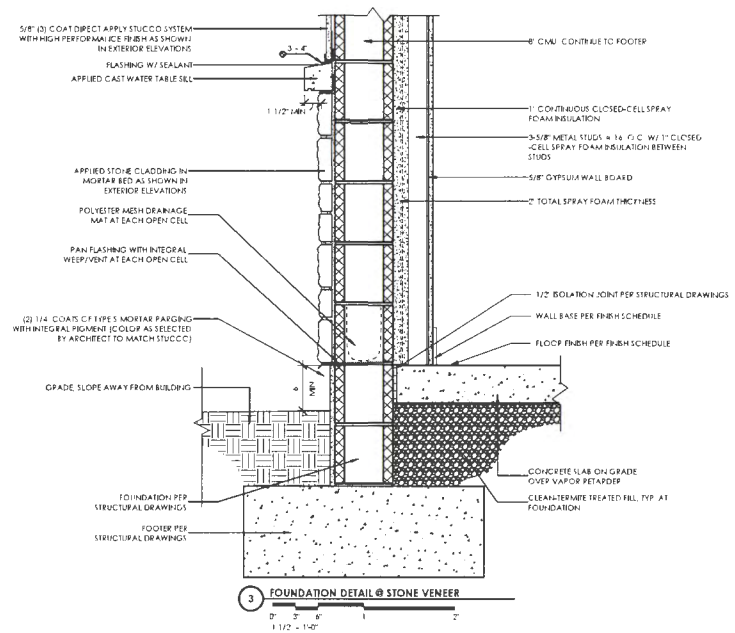
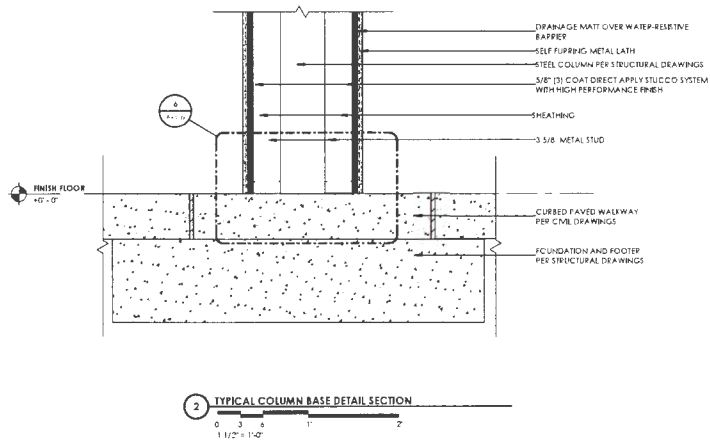
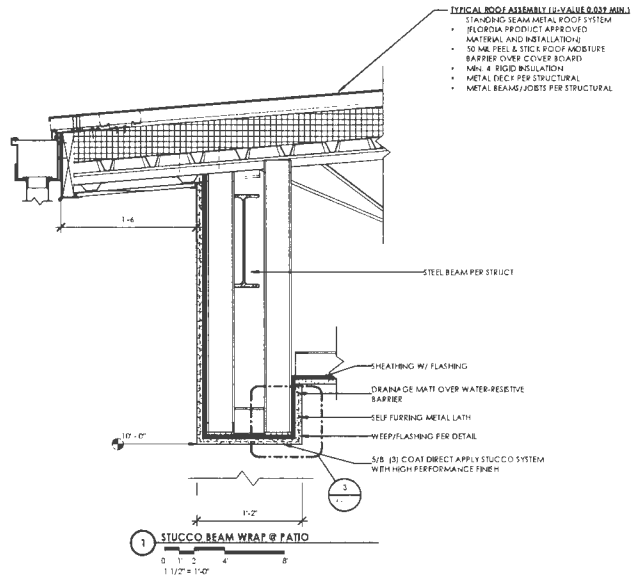
PROJECT NO: 20213261.0012

NOV 15 2024

A-314

**BID SET**

NOVEMBER 15, 2024



**WALL SECTION GENERAL NOTES:**

1. WALL SECTIONS & NOTES ARE TYPICAL, UNLESS OTHERWISE NOTED.
2. ALL EXPOSED COPINGS, FLASHINGS, DMP EDGES, ETC. TO BE PREFINISHED.
3. PROVIDE FLASHINGS AT ALL ROOF/WALL INTERSECTIONS (MIN. 4" EACH WAY) WITH BEC OUT FLASHING AT THE LOW END OF EACH RUN TO DIVERSE WATER AWAY FROM WALL WHEN WALL CONTIGUOUS BELOW EAVE.
4. ALUMINUM GUTTERS AND DOWNSPOUTS TO BE PROVIDED PER ROOF PLAN.
5. ALL EXPOSED METAL DECK AND FRAMING IS TO BE PAINTED COLOR SELECTED BY ARCHITECT.
6. PROVIDE INTUMESCENT COATING WHERE SPRAY FOAM IS EXPOSED.
7. AT SIDEWALK LOCATIONS, MANDATORY TO CONTINUE TO SIDEWALK.
8. STUCCO FINISH COAT TO BE STUCCO COLOR #1.

STAMP

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4040 GALE COLA AVE., SUITE 200  
ST. AUGUSTINE, FL 32084  
PHONE: 787-4417  
FAX: 787-4417  
PROJECT MANAGER: JAMES WILSON  
PROJECT ARCHITECT: JAMES WILSON  
DESIGNER: JAMES WILSON

NO.	DATE	BY	DESCRIPTION

UNAUTHORIZED USE OF THESE DRAWINGS IS PROHIBITED BY FLORIDA AND/OR FEDERAL LAW. ANY REPRODUCTION OR ALTERATION OF THESE DRAWINGS WITHOUT THE WRITTEN PERMISSION OF PASSERO ASSOCIATES IS PROHIBITED.

**WALL SECTIONS -  
FOUNDATION  
DETAILS**

4630 MELANIE  
STREET

FIRE STATION #21 &  
SHERIFF'S OFFICE

TOWN/CITY: Hastings

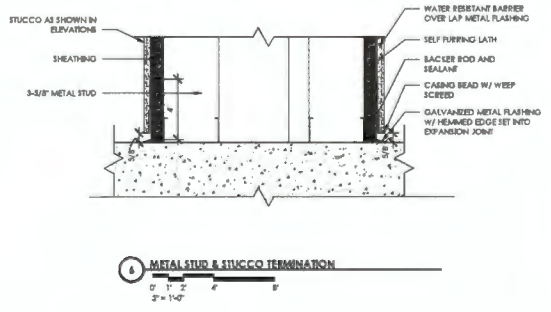
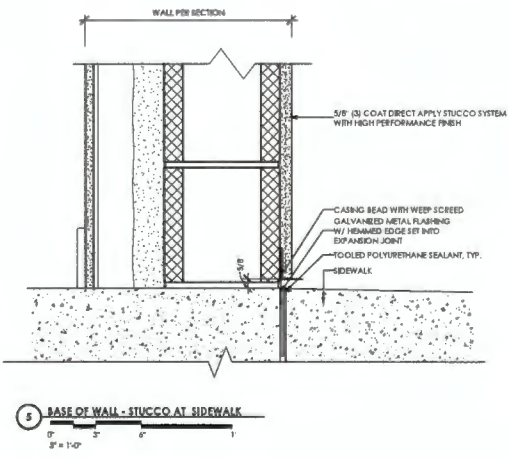
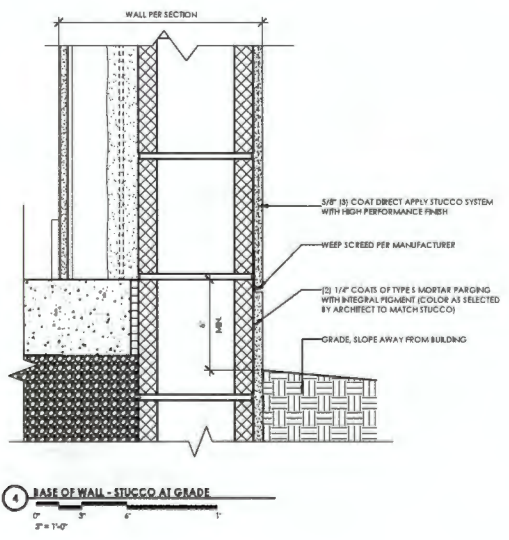
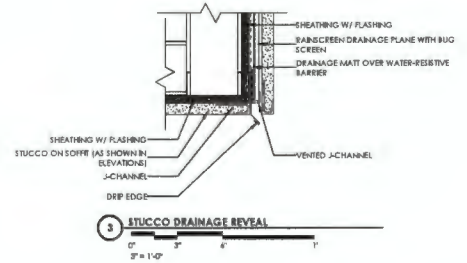
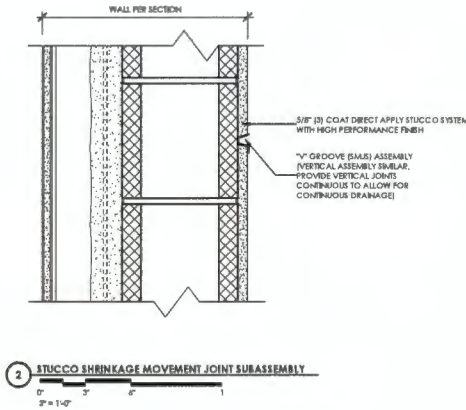
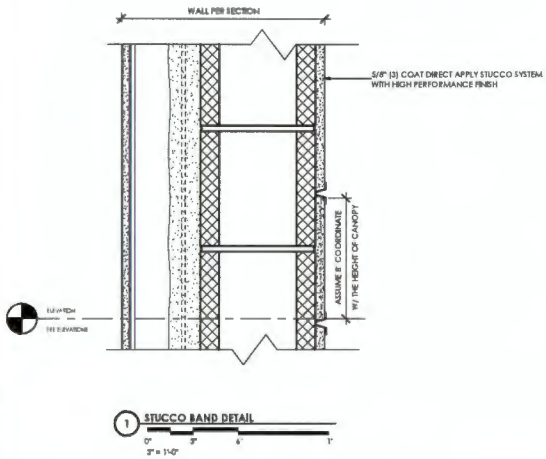
COUNTY: St. Johns STATE: Florida

PROJECT NO:  
20213261.0012

DATE:  
A-315

DATE:  
NOVEMBER 15, 2024

**BID SET**



CLIENT  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

1000 Lake Nona Pkwy, Suite 202  
St. Augustine, FL 32080  
PROJECT NUMBER: 20213261-0012  
PROJECT PHASE: BIDDING  
PROJECT TYPE: COMMERCIAL

REV	DATE	BY	DESCRIPTION

**WALL SECTIONS - STUCCO DETAILS**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

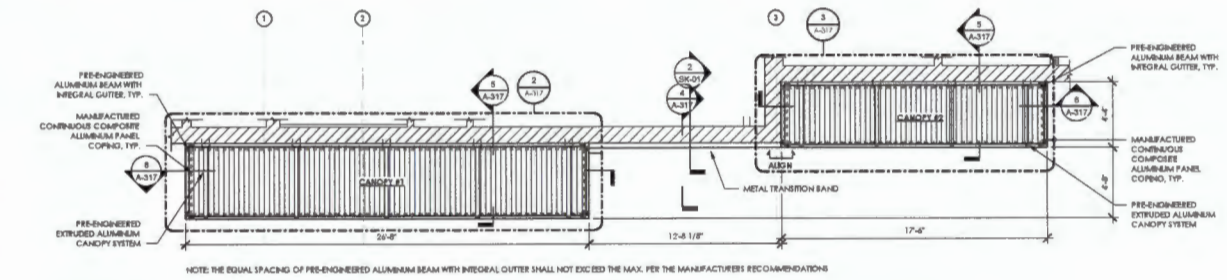
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A-316

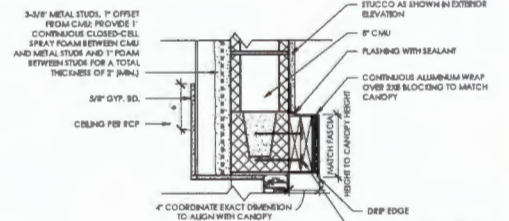
**BID SET**

NOVEMBER 15, 2024

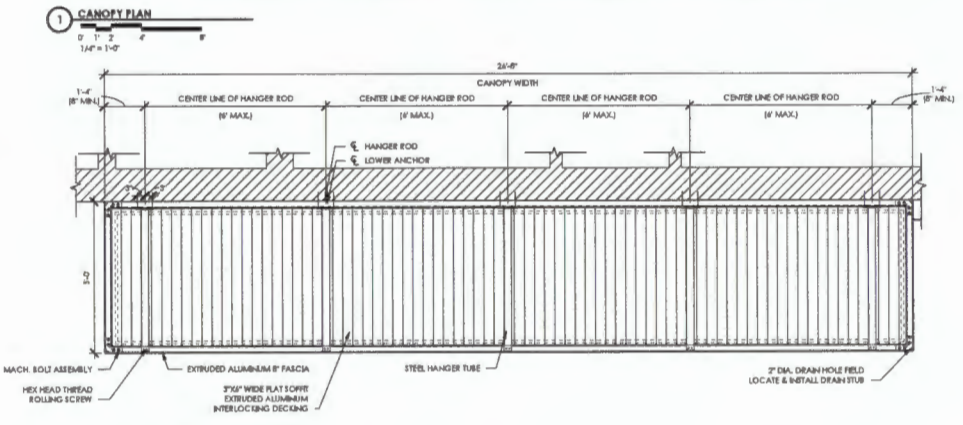
- GENERAL NOTES:**  
 1. BASE OF DESIGN IS MAJOR CANOPY.  
 2. CANOPY DETAILS PROVIDED ARE TO CONVEY DESIGN INTENT. FINAL LAYOUT/CANOPY DESIGN BY CANOPY SUPPLIER.  
 3. TRANSITION BAND SHALL MATCH APPEARANCE OF CANOPY.



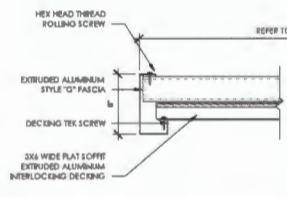
NOTE: THE EQUAL SPACING OF PRE-ENGINEERED ALUMINUM BEAM WITH INTEGRAL GUTTER SHALL NOT EXCEED THE MAX. PER THE MANUFACTURER'S RECOMMENDATIONS



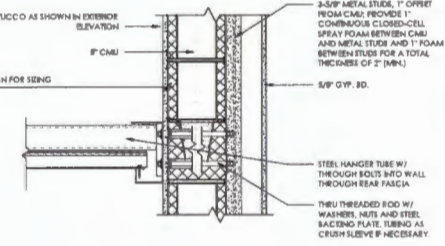
**4 CANOPY BAND SEGMENT**  
0' 2' 4' 1 1/2" = 1'-0"



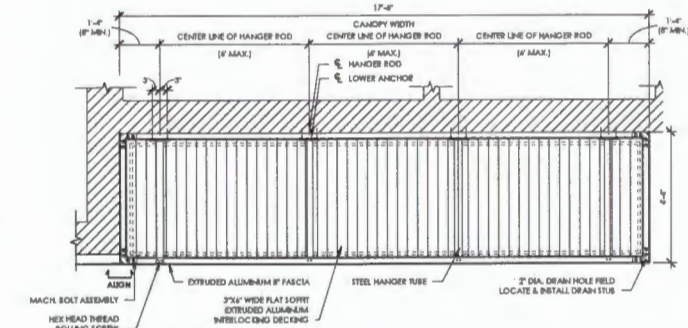
**1 CANOPY PLAN**  
0' 2' 4' 1 1/2" = 1'-0"



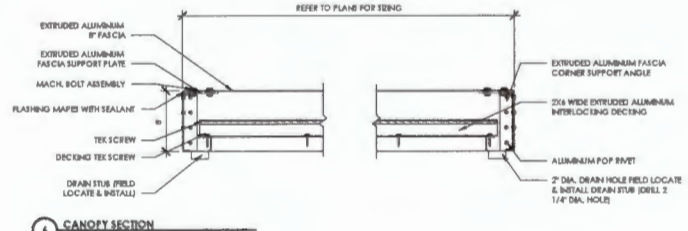
**5 CANOPY SECTION**  
0' 2' 4' 1 1/2" = 1'-0"



**3**



**2 ENLARGED PLAN - CANOPY #1**  
0' 2' 4' 1 1/2" = 1'-0"



**6 CANOPY SECTION**  
0' 2' 4' 1 1/2" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**  
4700 Gula Rd., Suite 302, St. Augustine, FL 32084  
Phone: 904-826-1111  
Fax: 904-826-1112  
Email: info@passeroassociates.com  
Website: www.passeroassociates.com

NO.	DATE	BY	DESCRIPTION

**WALL SECTIONS - CANOPY DETAILS**

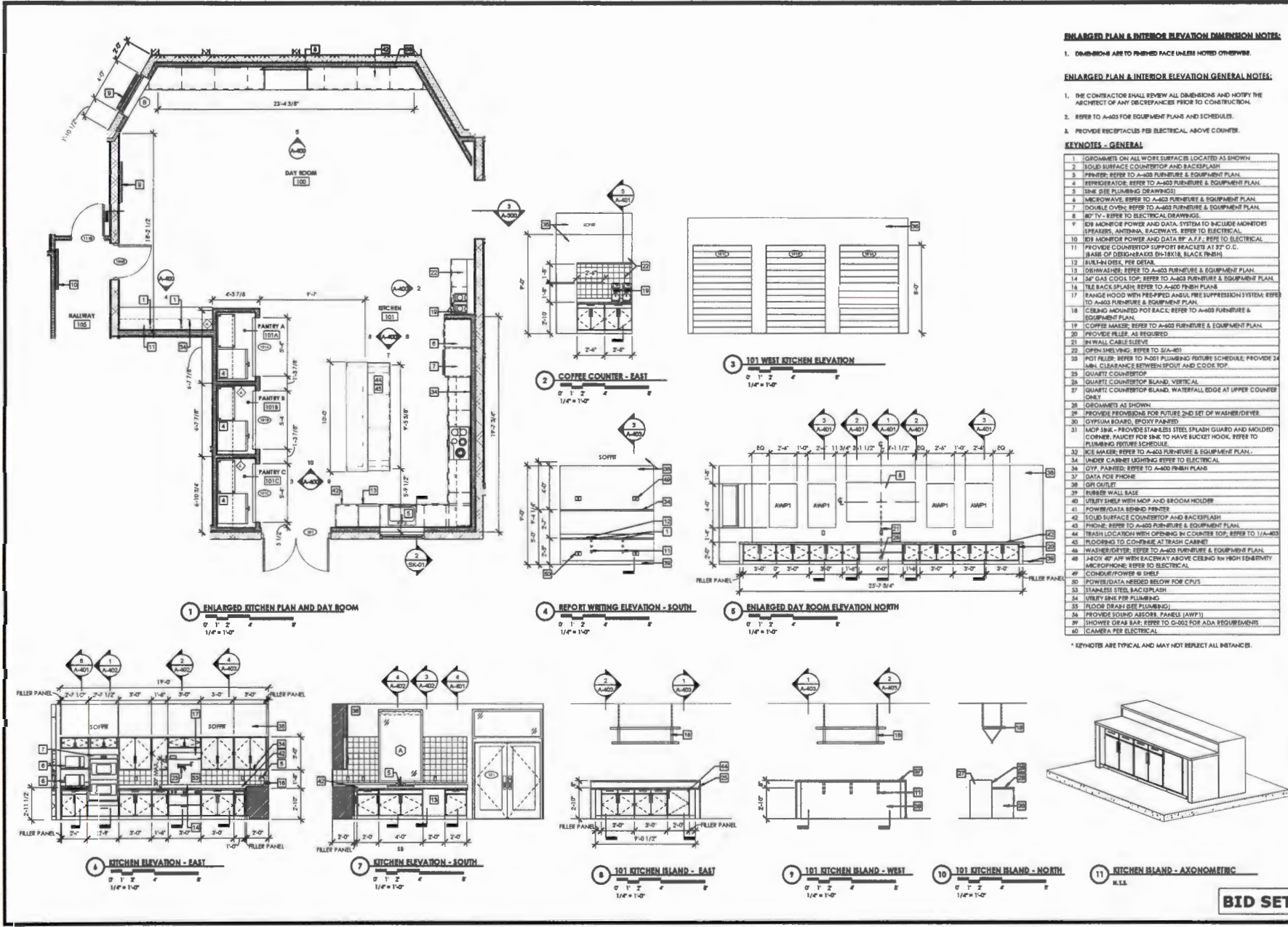
4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

20213261.0012

A-317

**BID SET**

NOVEMBER 15, 2024



**ENLARGED PLAN & INTERIOR DIMENSION NOTES:**

1. DIMENSIONS ARE TO FINISH FACE UNLESS NOTED OTHERWISE.

**ENLARGED PLAN & INTERIOR ELEVATION GENERAL NOTES:**

- 1. THE CONTRACTOR SHALL REVIEW ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- 2. REFER TO A-403 FOR EQUIPMENT PLANS AND SCHEDULES.
- 3. PROVIDE RECEPTACLES PER ELECTRICAL ABOVE COUNTER.

**KEYNOTES - GENERAL**

1	GROMMETS ON ALL WORK SURFACES LOCATED AS SHOWN
2	SOLID SURFACE COUNTERTOP AND BACKSPLASH
3	PRINTER, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
4	REFRIGERATOR, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
5	SINK (SEE PLUMBING DRAWINGS)
6	MICROWAVE, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
7	DOUBLE OVEN, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
8	80" TV, REFER TO ELECTRICAL DRAWINGS
9	80" MONITOR POWER AND DATA SYSTEM TO INCLUDE ACHNETIST SPEAKERS, ANTENNA, RACEWAYS, REFER TO ELECTRICAL
10	80" MONITOR POWER AND DATA BY A.F.F., REFER TO ELECTRICAL
11	PROVIDE COUNTERTOP SUPPORT BRACKETS AT 12" O.C. (BASE OF DESIGN BACKSPLASH 60-18X18, BLACK FINISH)
12	BUILT-IN OVEN, PER DETAIL
13	DISHWASHER, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
14	36" GAS COOK TOP, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
16	TILE BACK SPLASH REFER TO A-403 FINISH PLAN
17	RANGE HOOD WITH PREPARED ANGLE FIRE SUPPRESSION SYSTEM, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
18	CERAMIC MOUNTED POT RACK, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
19	COFFEE MAKER, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
20	PROVIDE FILLER, AS REQUIRED
21	PER WALL CABLE SLUVE
22	OPEN SHELVING, REFER TO SIA-401
23	POT FILLER, REFER TO A-401 PLUMBING FIXTURE SCHEDULE, PROVIDE 24" MIN. CLEARANCE BETWEEN SPOUT AND C O D K TOP
25	QUARTZ COUNTERTOP
26	QUARTZ COUNTERTOP ISLAND, VERTICAL
27	QUARTZ COUNTERTOP BLAND, WATERFALL EDGE AT UPPER COUNTER CORNER
28	GROMMETS AS SHOWN
29	PROVIDE PROVISIONS FOR FUTURE 2ND SET OF WASHER/DRYER
30	COFFIN BOARD, EPOXY PAINTED
31	NOAP SINK - PROVIDE STAINLESS STEEL SPLASH GUARD AND MOUNTED CORNER FAUCET FOR SINK TO HAVE SCKET HOOK, REFER TO PLUMBING FIXTURE SCHEDULE
32	ICE MAKER, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
34	UNDER CABINET LIGHTING REFER TO ELECTRICAL
35	COFF. PARALLEL REFER TO A-400 FINISH PLAN
37	DATA FOR PHONE
38	GPI OUTLET
39	RUBBER WALL BASE
40	UTILITY SHELF WITH MOP AND BROOM HOLDER
41	POWER/DATA BEHIND PRINTER
42	SOLID SURFACE COUNTERTOP AND BACKSPLASH
43	PHONE, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
44	TRASH LOCATION WITH OPENING IN COUNTER TOP, REFER TO 1(A)-403
45	FLOORING TO CONTINUE AT TRASH CABINET
46	WASHER DRYER, REFER TO A-403 FURNITURE & EQUIPMENT PLAN
48	140X 40" AFF WITH RACEWAY ABOVE CEILING BY HIGH ENERGY MICROPHONE, REFER TO ELECTRICAL
50	POWER/DATA NEEDED BELOW FOR CPU/S
53	STAINLESS STEEL BACK SPLASH
54	UTILITY SINK PER PLUMBING
55	FLOOR DRAIN (SEE PLUMBING)
56	PROVIDE SOUND ABSORBER PANELS (AWF-1)
59	SHOWER GRAB BAR, REFER TO G-002 FOR ADA REQUIREMENTS
60	CAMERA PER ELECTRICAL

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

CLIENT  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associate**

ONE COLONY HILLS, SUITE 300  
ST. AUGUSTINE, FL 32084

NO.	DATE	BY	DESCRIPTION

**KITCHEN/DAY ROOM - ENLARGED PLANS AND DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

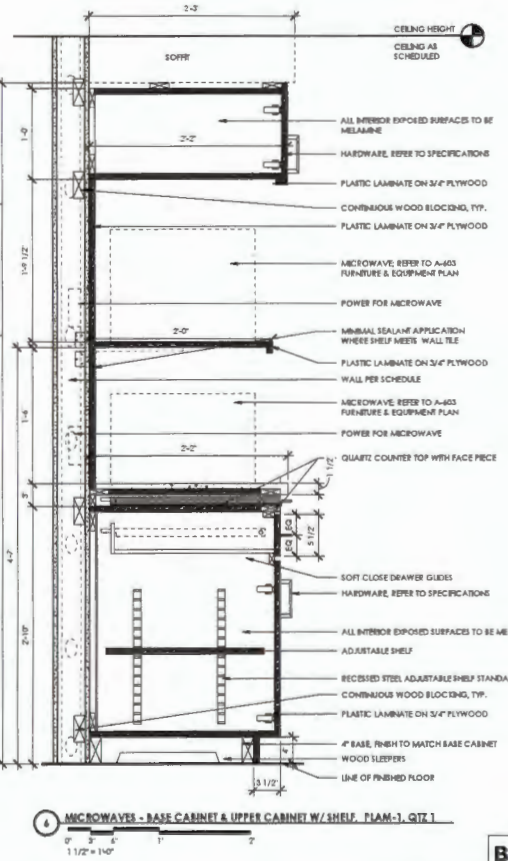
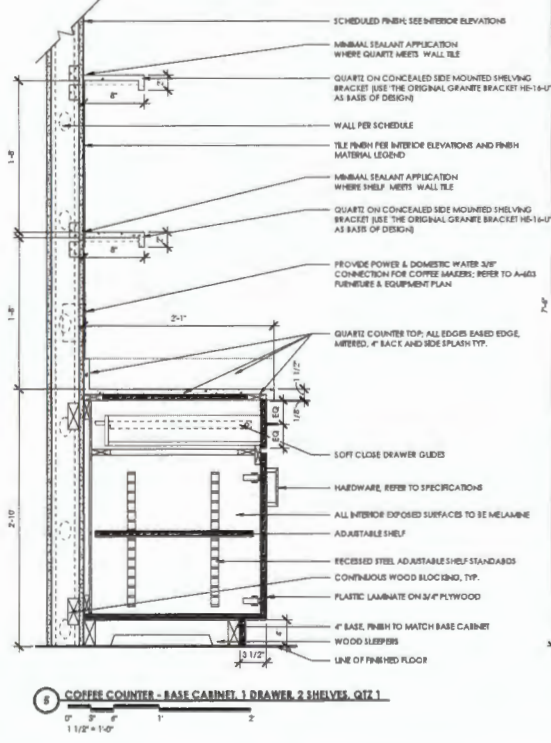
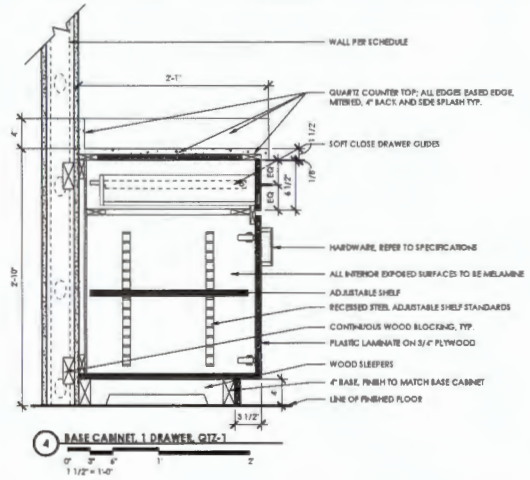
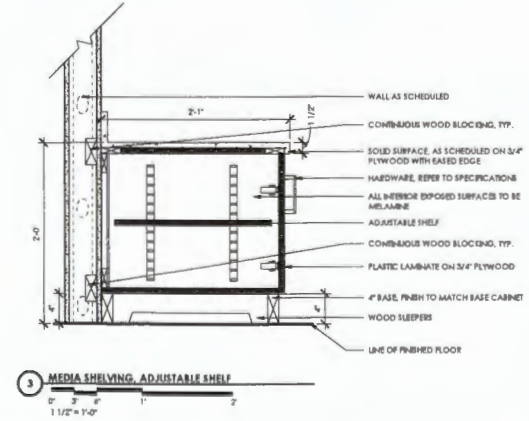
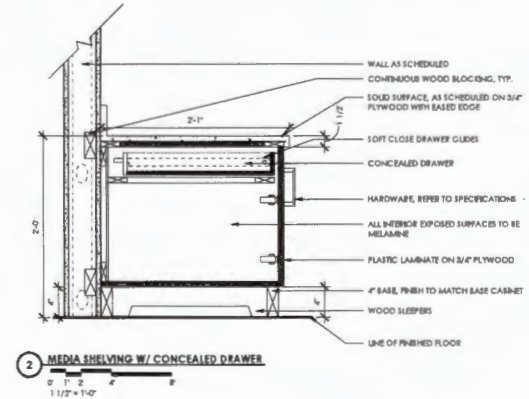
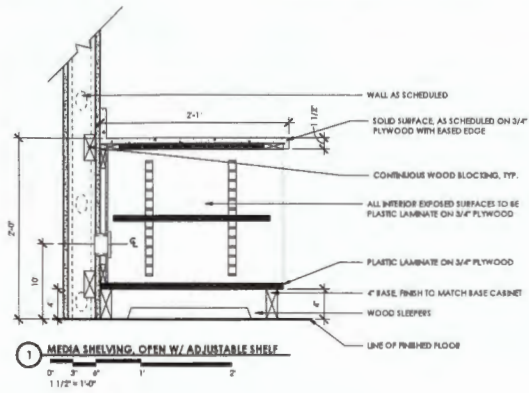
COUNTY: St. Johns STATE: FLA.

20213261.0012

A-400

**BID SET**

NOVEMBER 15, 2021



**MILLWORK GENERAL NOTES**

1. PROVIDE FINISH-TYPE WOOD BLOCKING AT ALL CABINETS, COUNTERS, WALL-MOUNTED ACCESSORIES, WALL-MOUNTED TVS AS NECESSARY.
2. PROVIDE 1/2\"/>

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

PROJECT NUMBER:	DATE:	BY:	DESCRIPTION:
PROJECT LOCATION:			
PROJECT STATUS:			

**KITCHEN/DAY ROOM - MILLWORK DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWN/CITY: Hawthorn  
COUNTY: St. Johns STATE: Florida

20213261.0012  
A-401

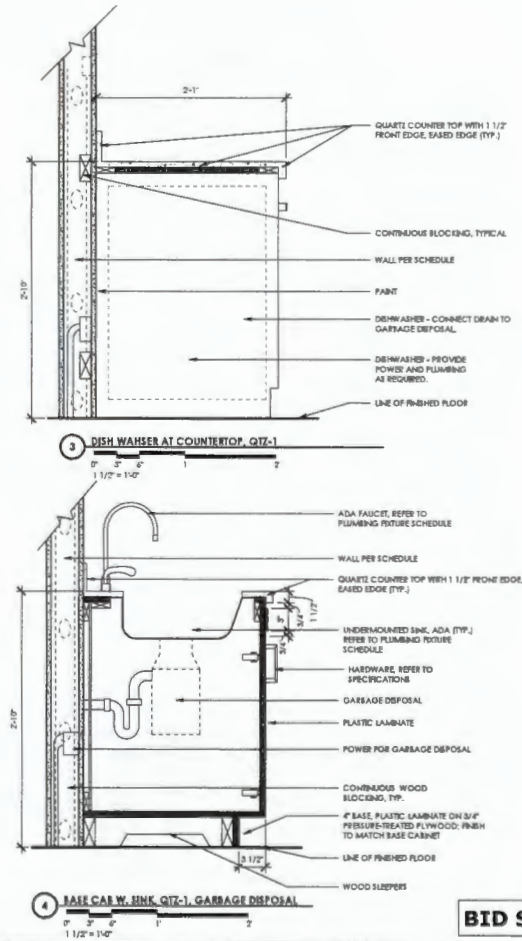
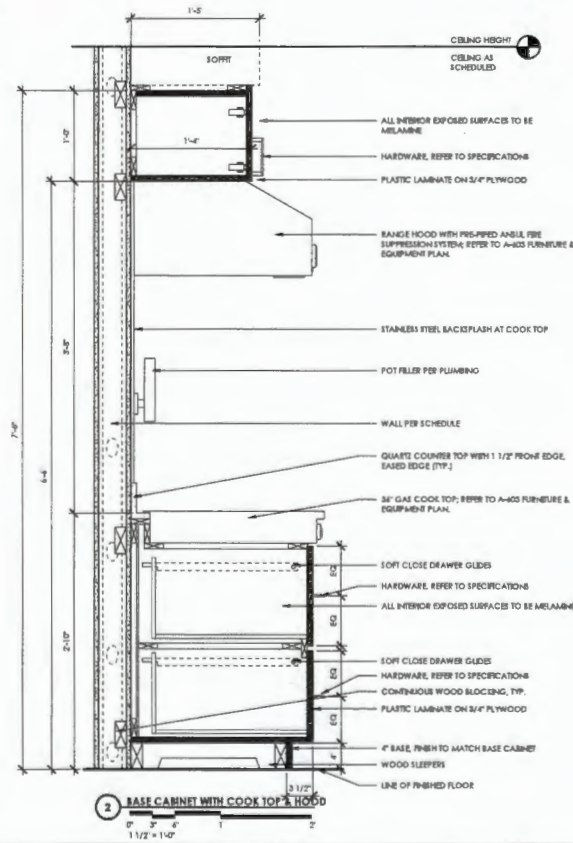
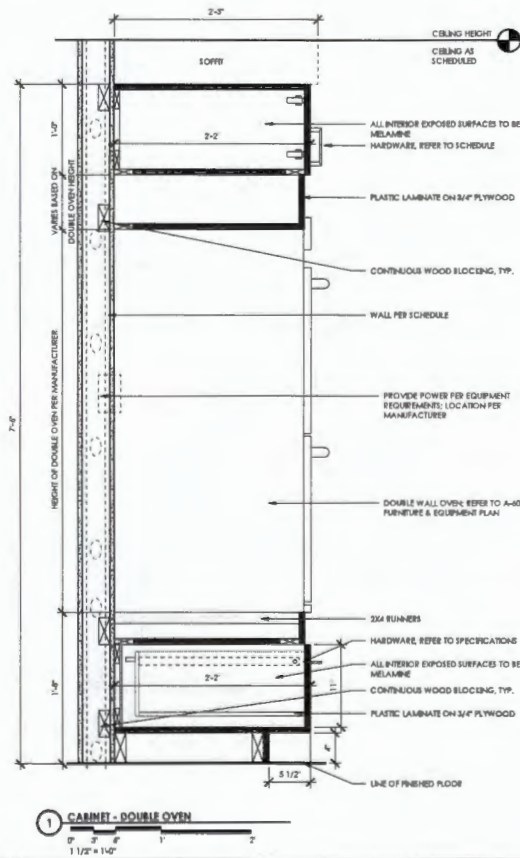
**BID SET**

NOVEMBER 15, 2024



**MILLWORK GENERAL NOTES**

1. PROVIDE PRESATURATED WOOD BLOCCING AT ALL CABINETS, COUNTERTOP, WALL-MOUNTED ACCESSORIES, WALL-MOUNTED TVS AS NECESSARY.
2. PROVIDE 1.5" SCRIBES WHERE CABINETRY MEETS PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
3. PROVIDE 4" TOE BLOCK AT ALL BASE CABINETS, 66-1 FINISH, UNLESS OTHERWISE NOTED.
4. GROMMET
  - A. PROVIDE PLASTIC WIRE ACCESS GROMMETS WITH BASED EDGE AND REMOVABLE CAP THAT COMPLETELY COVERS THE GROMMET LINE.
  - B. GROMMET TO BE 2.5" DIAMETER. COLOR TO BE PLAT BLACK, UNLESS OTHERWISE NOTED.
  - C. GROMMET INSTALLATION TO BE INSTALLED WHERE SHOWN, IF NOT SHOWN, ASSUME 24" O.C. AT OPEN BELOW WORK SURFACES AND CENTERLINE SHALL BE 3.5" FROM WORK SURFACES BACK EDGE.
  - D. FINAL GROMMET HOLE LOCATIONS TO BE DRILLED ON SITE AS DETERMINED BY ARCHITECT.
5. AT UPPER CABINETS THAT ARE LESS THAN 30" HIGH, ONLY 1 ADJUSTABLE SHELF IS REQUIRED.
6. CABINET DETAIL FOR DOUBLE OVEN AND COOK TOP ARE BASED ON THE BASE OF DESIGN PRODUCTS. REFER TO A-403 FURNITURE & EQUIPMENT PLAN. COORDINATE CABINETRY WITH PROVIDED PRODUCTS.



CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Spiedway  
St. Augustine, Florida 32084

**Passero Associates**

1001 S. GULF BLVD., SUITE 200  
ST. AUGUSTINE, FL 32084  
TEL: 904.829.1111  
WWW.PASSEROASSOCIATES.COM

DATE: BY: DESCRIPTION:

NO.	DATE	BY	DESCRIPTION

**KITCHEN/DAY ROOM  
- MILLWORK DETAILS**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Melbourne  
COUNTY: St. Johns STATE: Florida

20213261.0012

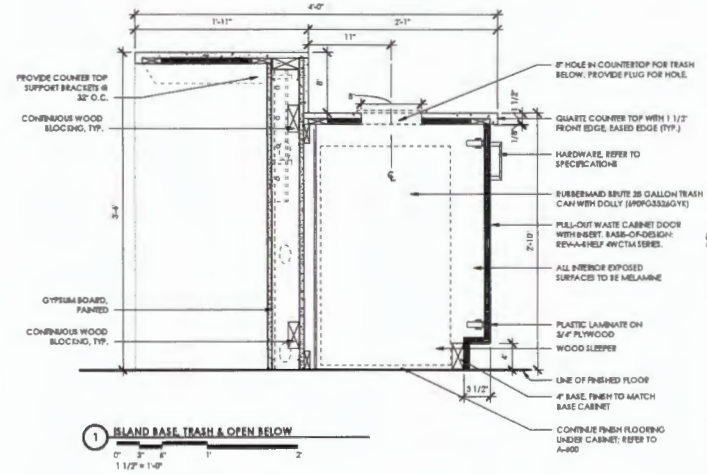
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NOVEMBER 15, 2024

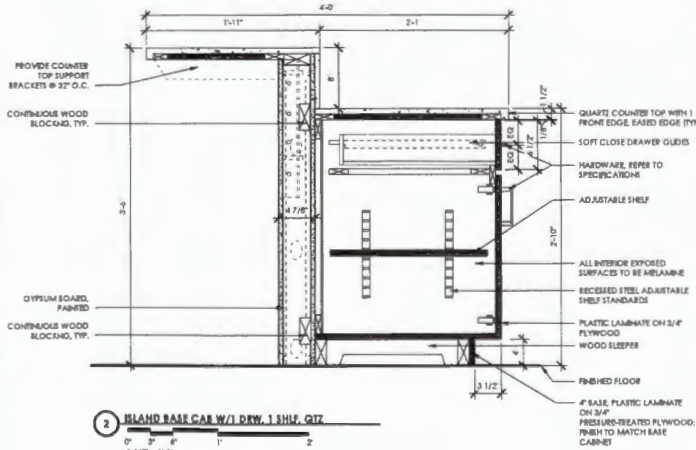
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**MILLWORK GENERAL NOTES**

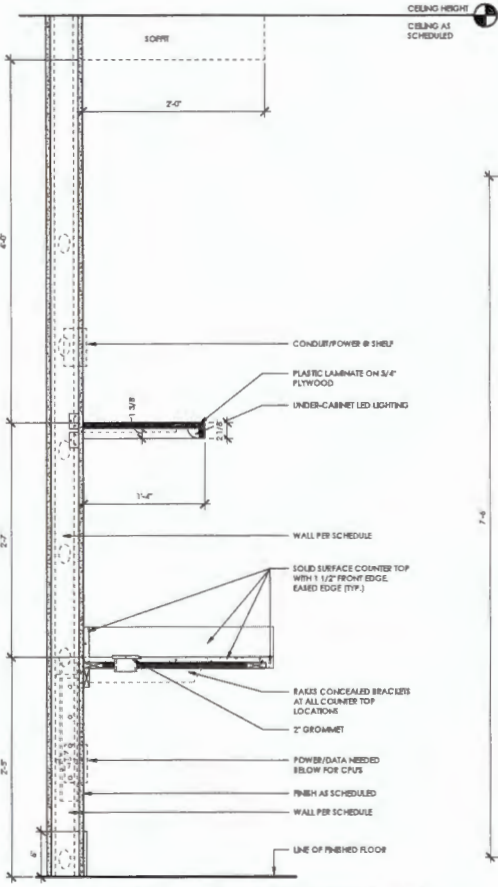
1. PROVIDE PRE-PAVED WOOD BLOCING AT ALL CABINETS, COUNTERS, WALL-MOUNTED ACCESSORIES, WALL-MOUNTED TVS AS NECESSARY.
2. PROVIDE 1" SCIBS WHERE CABINETS MEET PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
3. PROVIDE 4" TOE BLOCK AT ALL BASE CABINETS, 1/4" FINISH UNLESS OTHERWISE NOTED.
4. GROMMET
  - A. PROVIDE PLASTIC WIRE ACCESS GROMMETS WITH RAISED EDGE AND REMOVABLE CAP THAT COMPLETELY COVERS THE GROMMET LAYER.
  - B. GROMMET TO BE 2 1/2" DIAMETER, COLOR TO BE FLAT BLACK, UNLESS OTHERWISE NOTED.
  - C. GROMMET INSTALLATION TO BE INSTALLED WHERE SHOWN, IF NOT SHOWN, ASSUME 24" O.C. AT OPEN BELOW WORK SURFACES AND CONTINUE SHALL BE 6.25" FROM WORK SURFACES BACK EDGE.
  - D. FINAL GROMMET HOLE LOCATIONS TO BE DRILLED ON-SITE AS DETERMINED BY ARCHITECT.
5. AT UPPER CABINETS THAT ARE LESS THAN 30" HIGH, ONLY 1 ADJUSTABLE SHELF IS REQUIRED.
6. CABINET DETAIL FOR DOUBLE OVEN AND COFFEE TOP ARE BASED ON THE BASIS OF DESIGN PRODUCTS. REFER TO A-403 FURNITURE & EQUIPMENT PLAN. COORDINATE CABINETS WITH PROVIDED PRODUCTS.



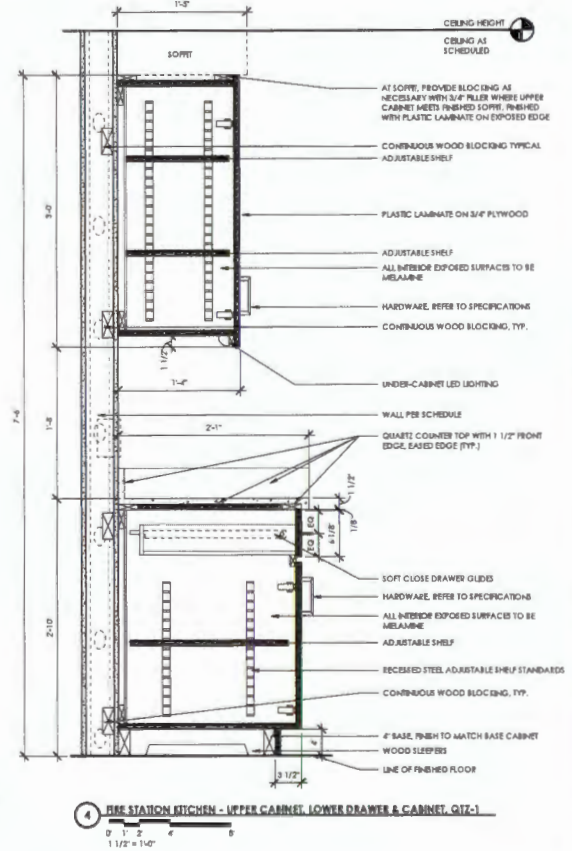
**1 ISLAND BASE TRASH & OPEN BELOW**  
1 1/2" = 1'-0"



**2 ISLAND BASE CAB W/ 1 DRW, 1 SHLF, QTZ**  
1 1/2" = 1'-0"



**3 REPORT WRITING - CONCEALED COUNTER SUPPORT W/ UPPER SHELF, SOS-1, FLAM-1**  
1 1/2" = 1'-0"



**4 FIRE STATION KITCHEN - UPPER CABINET, LOWER DRAWER & CABINET, QIZ-1**  
1 1/2" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**  
4040 Lewis Speedway, Suite 200  
St. Augustine, FL 32084

NO.	DATE	BY	DESCRIPTION

**KITCHEN/DAY ROOM - MILLWORK DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings

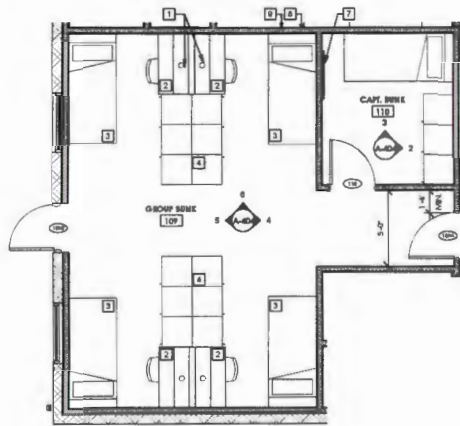
COUNTY: St. Johns STATE: FLORIDA

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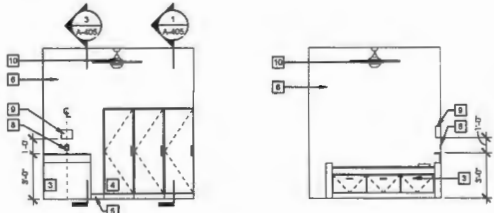
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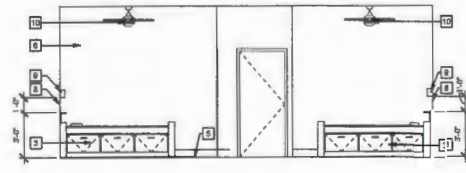
NOVEMBER 15, 2024



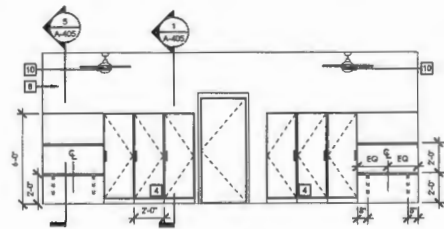
**1 ENLARGED GROUP AND CAPTAIN'S BUNK ROOMS**  
1/4" = 1'-0"



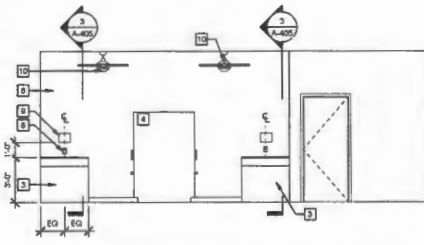
**2 110 - CAPT. BUNK - EAST**      **3 110 CAPT. BUNK - NORTH**  
1/4" = 1'-0"



**4 BUNK ROOM BED COMBINATION - EAST**  
1/4" = 1'-0"



**5 BUNK ROOM BED COMBINATION - WEST**  
1/4" = 1'-0"



**6 BUNK ROOM BED COMBINATION - NORTH**  
1/4" = 1'-0"

**KEYNOTES - BUNK ROOMS**

1	100GRANITE ON ALL WORK SURFACES
2	DESK PER DETAIL
3	WIP PER DETAIL
4	WARDROBE PER DETAIL; PROVIDE HARDWARE FOR COMBINATION LOCK, COMBINATION LOCK BY OWNER
5	BURRISH WALL BASE
6	GYP. BD. PAINTED; REFER TO A-400 FINISH PLANS
7	POWER AND DATA FOR TV @ 80" AFF
8	WALL OUTLET W/ DUAL TYPE A/TYPE C USB PORTS; REFER TO ELECTRICAL
9	WALL SCONCE; REFER TO ELECTRICAL
10	ICING FAN; REFER TO ELECTRICAL

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL DETAILS

**PASSERO**  
Engineering Architecture

**PROMUS**

**ML+H**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

2701 COLINA DRIVE, SUITE 300      32010-7600  
ST. AUGUSTINE, FL 32084

NO.	DATE	BY	DESCRIPTION

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**BUNK ROOM - ENLARGED PLANS AND DETAILS**  
4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hawthorne  
COUNTY: St. Johns      STATE: Florida

20213261.0012

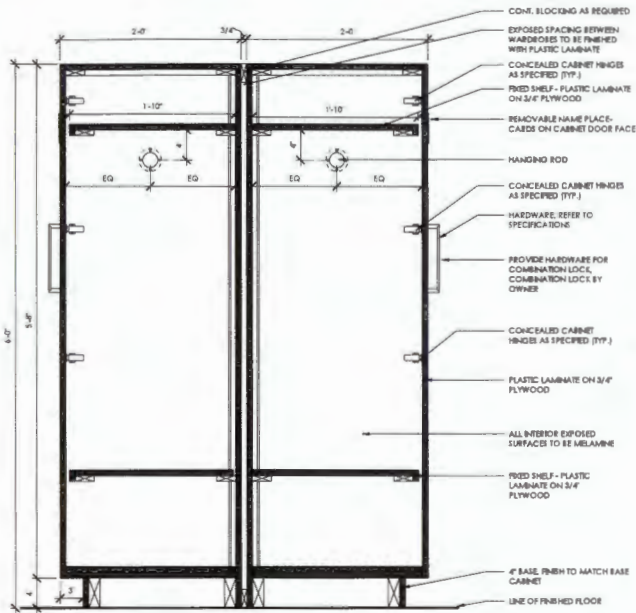
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**BID SET**

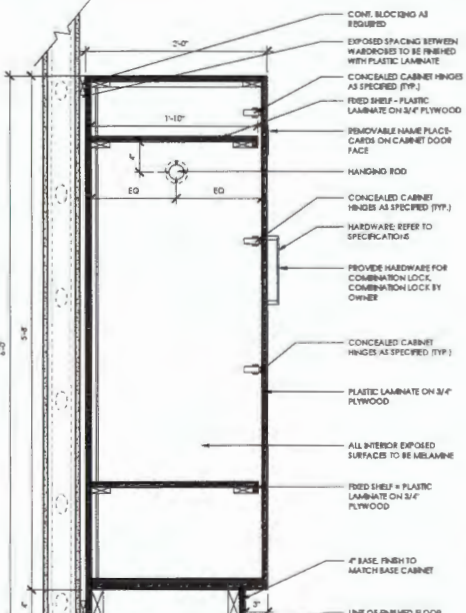
NOVEMBER 15, 2024

**MILLWORK GENERAL NOTES**

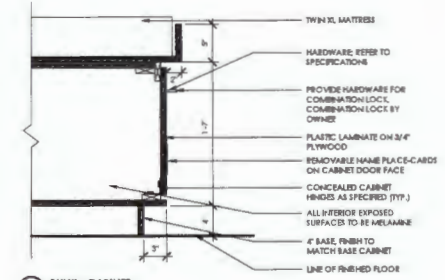
1. PROVIDE REBATED WOOD BLOCING AT ALL CABINET, COUNTER, WALL-MOUNTED ACCESSORIES, WALL-MOUNTED TV'S AS NECESSARY.
2. PROVIDE 1/2" SCREWS WHERE CABINET MEETS PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
3. PROVIDE 4" TOE BLOCK AT ALL BASE CABINETS, RE-1 FINISH, UNLESS OTHERWISE NOTED.
4. GROMMET
  - A. PROVIDE PLASTIC WIRE ACCESS GROMMETS WITH RABBED EDGE AND REMOVABLE CAP THAT COMPLETELY COVERS THE GROMMET LINER.
  - B. GROMMET TO BE 5/8" DIAMETER, COLOR TO BE PLAT BASE, UNLESS OTHERWISE NOTED.
  - C. GROMMET INSTALLATION TO BE INSTALLED WHERE SHOWN, IF NOT SHOWN, ASSUME 30" O.C. AT OPEN BELOW WORK SURFACES AND CENTERLINE SHALL BE 2 1/2" FROM WORK SURFACE'S BACK EDGE.
  - D. FINAL GROMMET HOLE LOCATIONS TO BE DRILLED ON-SITE AS DETERMINED BY ARCHITECT.
5. AT UPPER CABINETS THAT ARE LESS THAN 30" HIGH, ONLY 1 ADJUSTABLE SHELF IS REQUIRED.
6. CABINET DETAIL FOR DOUBLE OVEN AND COOK TOP ARE BASED ON THE BASIS OF DESIGN PRODUCTS. REFER TO A-603 FURNITURE & EQUIPMENT PLAN. COORDINATE CABINETS WITH PROVIDED PRODUCTS.



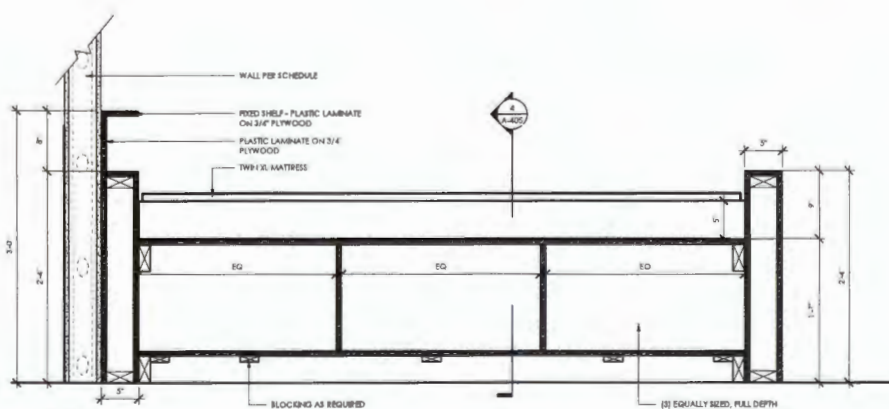
1 SECTIONAL DETAIL - GROUP BUNK WARDROBE  
1 1/2" = 1'-0"



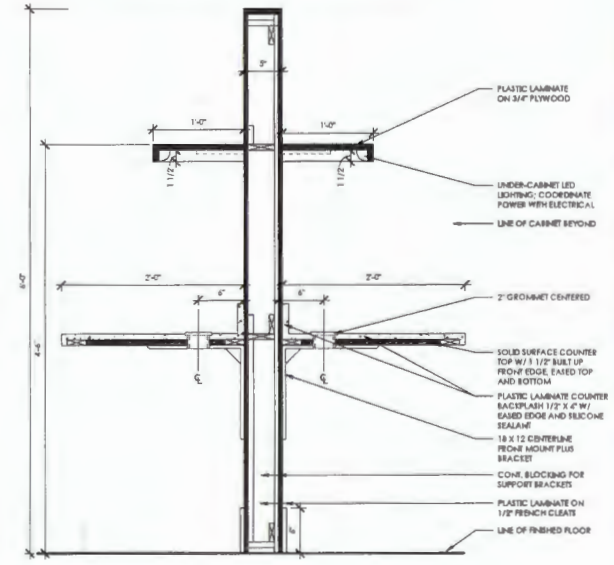
2 SECTIONAL DETAIL - CAPT. WARDROBE  
1 1/2" = 1'-0"



4 BUNK - CABINET  
1 1/2" = 1'-0"



3 BUNK  
1 1/2" = 1'-0"



5 DETAIL - BUNK ROOM DESK  
1 1/2" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

1001 CALIFORNIA BLVD, SUITE 300  
ST. AUGUSTINE, FL 32084  
PROJECT NUMBER: A-405  
PROJECT ARCHITECT: Passero Associates  
DATE: 11/20/23

NO.	DATE	BY	DESCRIPTION

**BUNK ROOM -  
MILLWORK DETAILS**

4630 MELANIE  
STREET

FIRE STATION #21 &  
SHERIFF'S OFFICE

TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

20213261.0012

A-405

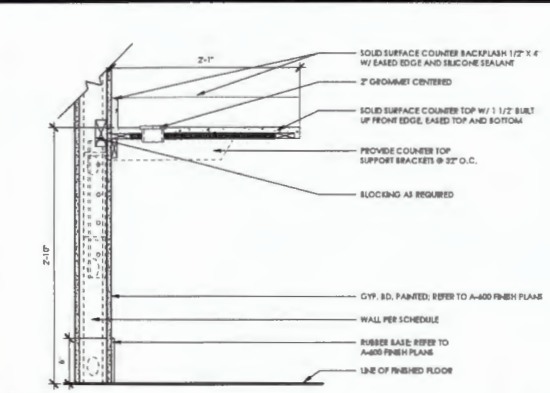
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NOVEMBER 15, 2024

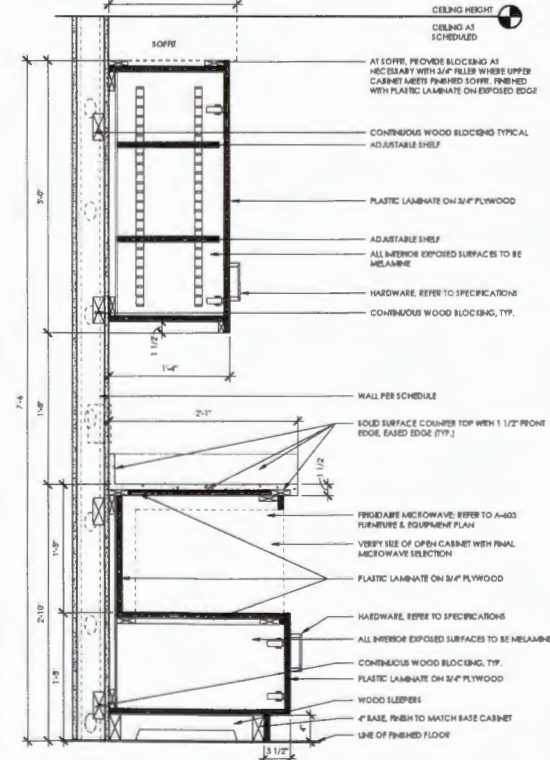


**MILLWORK GENERAL NOTES**

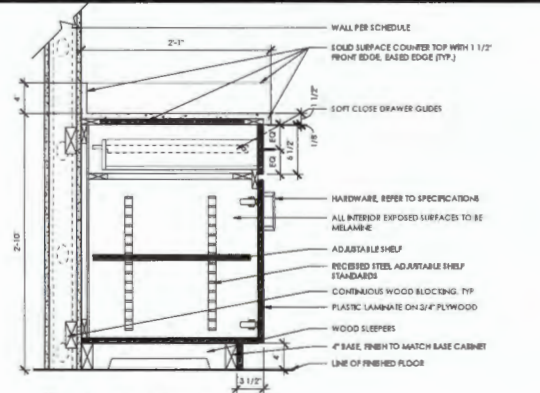
1. PROVIDE REBATED WOOD BLOCKING AT ALL CABINETS, COUNTER, WALL-MOUNTED ACCESSORIES, WALL-MOUNTED TVS AS NECESSARY.
2. PROVIDE 1/2" SCREWS WHERE CABINETRY MEETS PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
3. PROVIDE 4" TORX SCREWS AT ALL BASE CABINETS, 96-1 FINISH UNLESS OTHERWISE NOTED.
4. GROMMET
  - A. PROVIDE PLASTIC WIRE ACCESS GROMMETS WITH REBATED EDGE AND REMOVABLE CAP THAT COMPLETELY COVERS THE GROMMET LINE.
  - B. GROMMET TO BE 3/8" DIA. MIN. COLOR TO BE FLAT BLACK, UNLESS OTHERWISE NOTED.
  - C. GROMMET INSTALLATION TO BE INSTALLED WHERE SHOWN, IF NOT SHOWN, ASSUME 3" O.C. AT OPEN BELOW WORK SURFACES AND CONTIGUOUS TO BE 3/32" FROM WORK SURFACE BACK EDGE.
  - D. FINAL GROMMET HOLE LOCATIONS TO BE DRILLED ON-SITE AS DETERMINED BY ARCHITECT.
5. AT UPPER CABINETS THAT ARE LESS THAN 30" HIGH, ONLY 1 ADJUSTABLE SHELF IS REQUIRED.
6. CABINET DETAIL FOR DOUBLE OVEN AND COOKTOP ARE BASED ON THE BASIS OF DESIGN PRODUCTS. REFER TO A-403 FURNITURE & EQUIPMENT PLAN. COORDINATE CABINETRY WITH PROVIDED PRODUCTS.



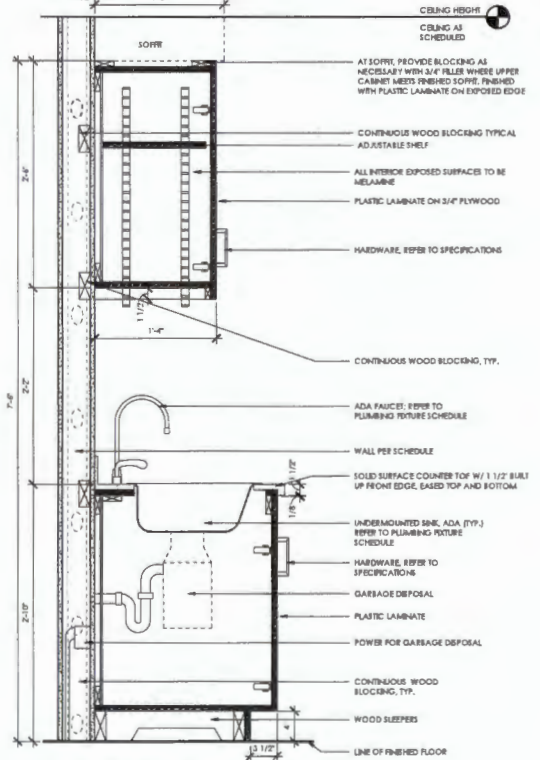
**1 SHERIFF ENTRY - COUNTERTOP, CONCEALED SUPPORT, 101-1**



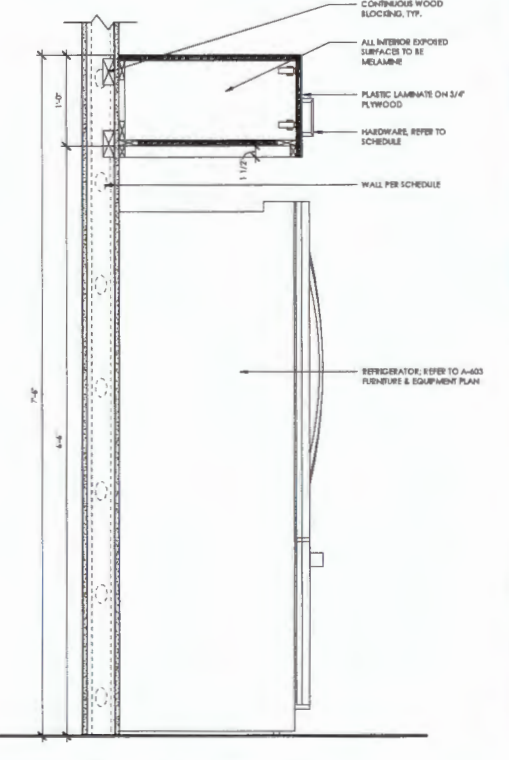
**2 SHERIFF'S KITCHENETTE - UPPER CABINET, LOWER DRAWER & CABINET, 017-1**



**3 BASE CABINET, 1 DRAWER, 101-1**



**4 SECTION DETAIL - UPPER 2-SHELF CABINET, SINK**



**5 TYPICAL CABINETRY SECTION AT REFRIGERATOR**

11-000

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

PROJECT NUMBER	DATE	BY	DESCRIPTION

**SHERIFF OFFICES - MILLWORK DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWN/CITY: Hastings

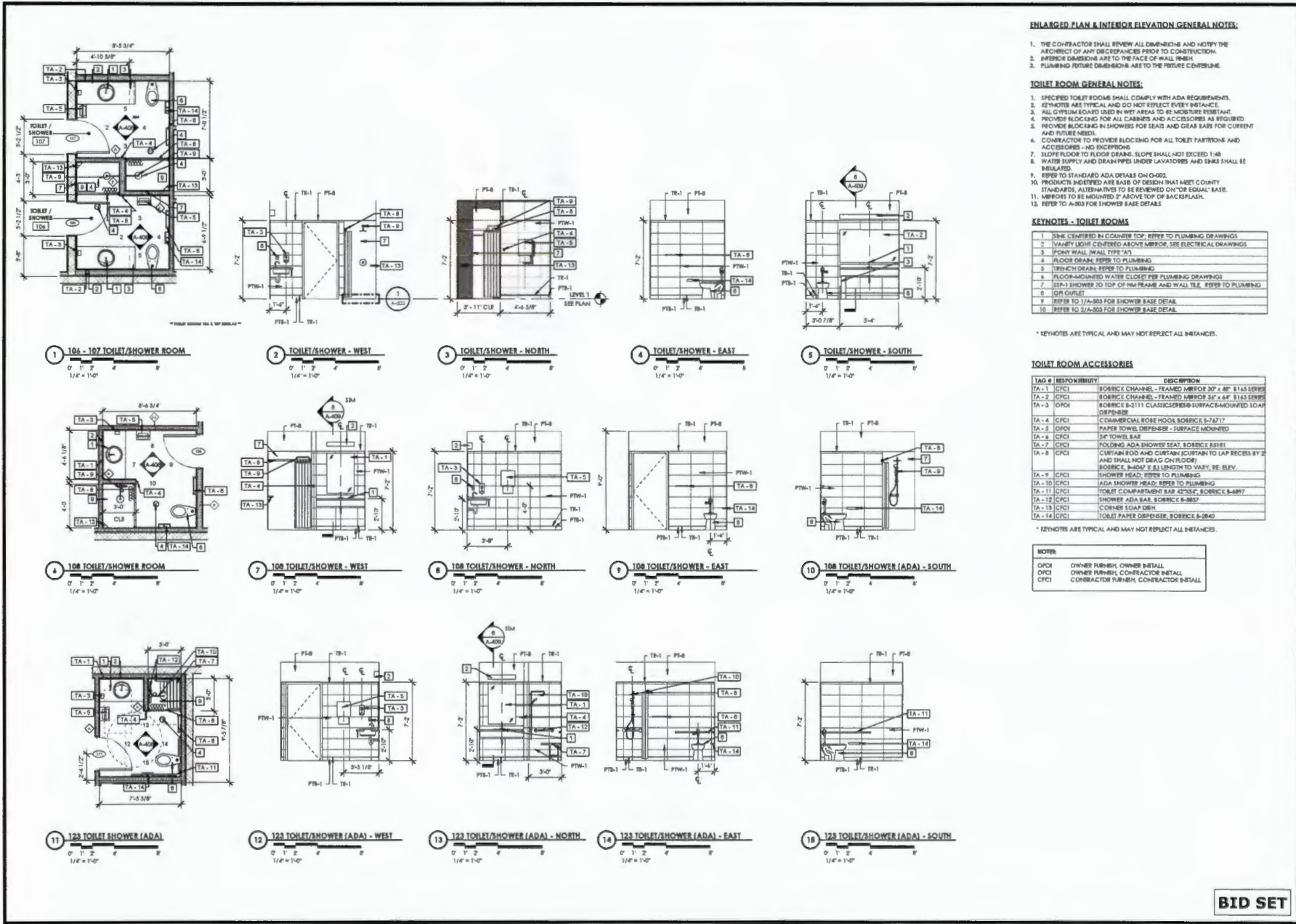
COUNTY: St. Johns STATE: Florida

20213261.0012

**A-407**

**BID SET**

NOVEMBER 15, 2024



**ENLARGED PLAN & INTERIOR ELEVATION GENERAL NOTES:**

1. THE CONTRACTOR SHALL REVIEW ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. INTERIOR DIMENSIONS ARE TO THE FACE OF WALL FINISH.
3. PLUMBING FINISH DIMENSIONS ARE TO THE FINISH CENTERLINE.

**TOILET ROOM GENERAL NOTES:**

1. SPECIFIED TOILET ROOMS SHALL COMPLY WITH ADA REQUIREMENTS.
2. KEYNOTES ARE TYPICAL AND DID NOT REFLECT EVERY INSTANCE.
3. ALL DRYUM EQUARED USED IN WET AREAS TO BE MOISTURE RESISTANT.
4. PROVIDE BLOCING FOR ALL CABINETS AND ACCESSORIES AS REQUIRED.
5. PROVIDE BLOCING IN SHOWERS FOR SEATS AND GRAB BARS FOR CURRENT AND FUTURE NEEDS.
6. CONTRACTOR TO PROVIDE BLOCING FOR ALL TOILET PARTITIONS AND ACCESSORIES - NO DISCREPANCIES.
7. SLOPE FLOOR TO FLOOR DRAINS. SLOPE SHALL NOT EXCEED 1/48.
8. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED.
9. REFER TO STANDARD ADA DETAILS ON 0-002.
10. PRODUCTS SHOWN ARE BASE OF DESIGN THAT MEET COUNTY STANDARDS, ALTERNATIVES TO BE REVIEWED ON/TO EQUAL BASIS.
11. MIRRORS TO BE MOUNTED 2" ABOVE TOP OF BACKSPLASH.
12. REFER TO A-400 FOR SHOWER BASE DETAILS.

**KEYNOTES - TOILET ROOMS**

1	SINK CENTERED IN COUNTER TOP. REFER TO PLUMBING DRAWINGS.
2	VANITY LIGHT CENTERED ABOVE MIRROR. SEE ELECTRICAL DRAWINGS.
3	POINT WALL, WALL TYPE 01.
4	FLOOR DRAIN. REFER TO PLUMBING.
5	TRENCH DRAIN. REFER TO PLUMBING.
6	FLOOR-MOUNTED WATER CLOSET PER PLUMBING DRAWINGS.
7	ISA-1 SHOWER TO TOP OF FIN FRAME AND WALL T.E. REFER TO PLUMBING.
8	GR OUTLET.
9	REFER TO 17A-303 FOR SHOWER BASE DETAIL.
10	REFER TO 21A-503 FOR SHOWER BASE DETAIL.

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

**TOILET ROOM ACCESSORIES**

TAG #	RESPONSIBILITY	DESCRIPTION
TA-1	CFCI	ROBBICK CHANNEL - FRAMED MIRROR 30" x 48" 8165 SERIES
TA-2	CFCI	ROBBICK CHANNEL - FRAMED MIRROR 36" x 48" 8165 SERIES
TA-3	CFCI	ROBBICK B-2111 CLASSIC SERIES SURFACE MOUNTED SOAP DISPENSER
TA-4	CFCI	COMMERCIAL ROBE HOOK ROBBICK B-7471
TA-5	CFCI	PAPER TOWEL DISPENSER - SURFACE MOUNTED
TA-6	CFCI	3" TOWEL BAR
TA-7	CFCI	FOLDING ADA SHOWER SEAT ROBBICK B3881
TA-8	CFCI	CURTAIN ROD AND CURTAIN (CURTAIN TO LAP RECES BY 2" AND SHALL NOT DRAG ON FLOOR) ROBBICK B-3047 X 51 LENGTH TO VARY, SEE ELEV.
TA-9	CFCI	SHOWER HEAD, REFER TO PLUMBING
TA-10	CFCI	ADA SHOWER HEAD, REFER TO PLUMBING
TA-11	CFCI	TOILET COMPARTMENT BAR Q255C, ROBBICK B-4897
TA-12	CFCI	SHOWER ADA BAR, ROBBICK B-8837
TA-13	CFCI	CORNER SOAP DISP.
TA-14	CFCI	TOILET PAPER DISPENSER, ROBBICK B-2840

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

**NOTES:**

- CFCI OWNER FURNISH, OWNER INSTALL
- CFCI OWNER FURNISH, CONTRACTOR INSTALL
- CFCI CONTRACTOR FURNISH, CONTRACTOR INSTALL

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

2501 LUNA CIRCLE, SUITE 300 ST. AUGUSTINE, FL 32084  
407-288-6644

PROJECT NUMBER: A-400  
PROJECT ADDRESS: ST. JOHNS COUNTY SHERIFF'S OFFICE  
SHEET NUMBER: 001

NO.	DATE	BY	DESCRIPTION

**TOILET ROOMS - ENLARGED PLANS AND DETAILS**

4630 MELANIE STREET  
ST. AUGUSTINE

FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: HASTINGS

COUNTY: St. Johns STATE: Florida

20213261.0012

A-408

NOVEMBER 15, 2024

**BID SET**

**ENLARGED PLAN & INTERIOR ELEVATION GENERAL NOTES:**

1. THE CONTRACTOR SHALL REVIEW ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. INTERIOR DIMENSIONS ARE TO THE FACE OF WALL FINISH.
3. PLUMBING FIXTURE DIMENSIONS ARE TO THE FINISHED CENTERLINE.

**TOILET ROOM GENERAL NOTES:**

1. SPECIFIED TOILET ROOMS SHALL COMPLY WITH ADA REQUIREMENTS.
2. KEYNOTES ARE TYPICAL AND DO NOT REFLECT EVERY INSTANCE.
3. ALL COUNTERBOARDS USED IN FIVE AREAS TO BE MOISTURE RESISTANT.
4. PROVIDE BLOCING FOR ALL CABINETS AND ACCESSORIES AS REQUIRED.
5. PROVIDE BLOCING IN SHOWERS FOR SEATS AND GRAB BARS FOR CURRENT AND FUTURE NEEDS.
6. CONTRACTOR TO PROVIDE BLOCING FOR ALL TOILET PARTITIONS AND ACCESSORIES AND EXCEPTIONS.
7. SLOPE FLOOR TO FLOOR DRAIN. SLOPE SHALL NOT EXCEED 1/8".
8. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED.
9. REFER TO STANDARD ADA DETAILS ON G-020.
10. PRODUCTS INDICATED ARE BASE OF DESIGN THAT MEET COUNTY STANDARDS. ALTERNATIVES TO BE REVIEWED ON "OR EQUAL" BASIS.
11. MIRRORS TO BE MOUNTED 2" ABOVE TOP OF KAC SPLASH.
12. REFER TO A-403 FOR SHOWER BASE DETAILS.

**KEYNOTES - TOILET ROOMS**

1	SINK CENTERED IN COUNTER TOP. REFER TO PLUMBING DRAWINGS.
2	VANITY LIGHT CENTERED ABOVE MIRROR. SEE ELECTRICAL DRAWINGS.
3	POINT WALL (WALL TYPE "A").
4	FLOOR DRAIN REFER TO PLUMBING.
5	TRENCH DRAIN REFER TO PLUMBING.
6	FLOOR-MOUNTED WATER CLOSET PER PLUMBING DRAWINGS.
7	SSP-1 SHOWER TO TOP OF NM FRAME AND WALL TILE. REFER TO PLUMBING.
8	GR OUTLET.
9	REFER TO 1/A-303 FOR SHOWER BASE DETAIL.
10	REFER TO 2/A-303 FOR SHOWER BASE DETAIL.

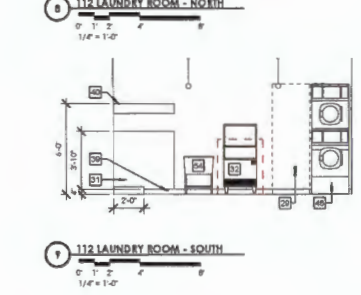
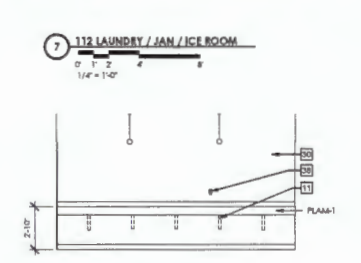
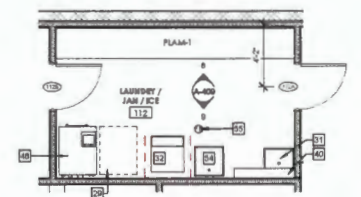
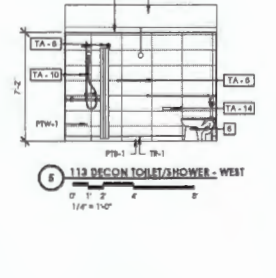
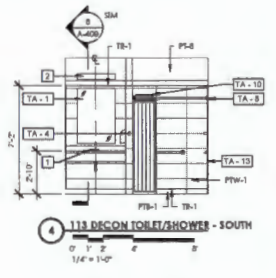
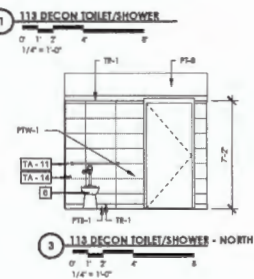
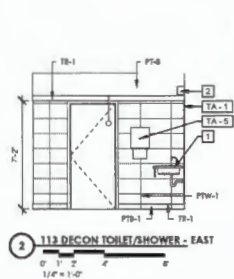
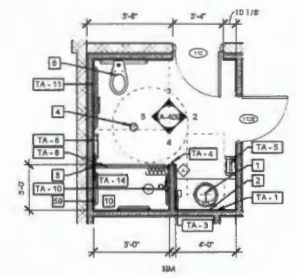
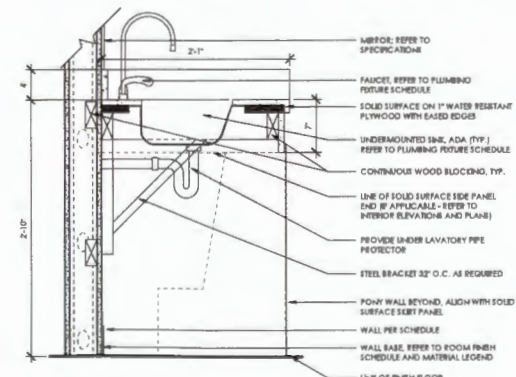
\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

**TOILET ROOM ACCESSORIES**

TAG #	RESPONSIBILITY	DESCRIPTION
TA-1	CFCI	BOBBIK CHANNEL - FRAMED MIRROR 30" x 48" 3/16S SERIES
TA-2	CFCI	BOBBIK CHANNEL - FRAMED MIRROR 30" x 48" 3/16S SERIES
TA-3	CFCI	BOBBIK 8-111 CLASSIC SERIES 30" SURFACE-MOUNTED SOAP DISPENSER
TA-4	CFCI	COMMERCIAL FIBER HOOK BOBBIK B-1717
TA-5	CFCI	PAPER TOWEL DISPENSER - SURFACE MOUNTED
TA-6	CFCI	24" TOWEL BAR
TA-7	CFCI	FOURING ADA SHOWER SEAT BOBBIK 18181
TA-8	CFCI	CURTAIN HOOD AND CURTAIN CURTAIN TO LAP EXCEED BY 2" (AND SHALL NOT DRAG ON FLOOR) BOBBIK B-180 X 61 LENGTH TO VARY, SEE ELEV.
TA-9	CFCI	SHOWER HEAD REFER TO PLUMBING
TA-10	CFCI	ADA SHOWER HEAD REFER TO PLUMBING
TA-11	CFCI	TOILET COMPARTMENT BAR 42"x34" BOBBIK B-497
TA-12	CFCI	SHOWER ADA BAR BOBBIK B-497
TA-13	CFCI	CORNER SOAP DISH
TA-14	CFCI	TOILET PAPER DISPENSER BOBBIK B-28-40

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

NOTE:	
CFCI	OWNER FURNISH, OWNER INSTALL
CFCI	OWNER FURNISH, CONTRACTOR INSTALL
CFCI	CONTRACTOR FURNISH, CONTRACTOR INSTALL



**ENLARGED PLAN & INTERIOR ELEVATION DIMENSION NOTES:**

1. DIMENSIONS ARE TO FINISHED FACE UNLESS NOTED OTHERWISE.

**ENLARGED PLAN & INTERIOR ELEVATION GENERAL NOTES:**

1. THE CONTRACTOR SHALL REVIEW ALL DIMENSIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. REFER TO A-403 FOR EQUIPMENT PLANS AND SCHEDULES.
3. PROVIDE RECEPTACLES PER ELECTRICAL, ABOVE COUNTER.

**KEYNOTES - GENERAL**

1	DRUMHETS ON ALL WORK SURFACES LOCATED AS SHOWN
2	SOLID SURFACE COUNTERTOP AND BACKSPLASH
3	PENETRS: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
4	REFRIGERATOR: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
5	SINK: (SEE PLUMBING DRAWINGS)
6	MICROWAVE: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
7	DOUBLE OVEN: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
8	NOT TV: REFER TO ELECTRICAL DRAWINGS.
9	IDS MONITOR POWER AND DATA SYSTEM TO INCLUDE MONITORS (PANELS, ANTENNA, RACKETS). REFER TO ELECTRICAL.
10	IDS MONITOR POWER AND DATA AT A-17. REFER TO ELECTRICAL.
11	PROVIDE COUNTERTOP SUPPORT BRACES AT 32" O.C. (BASE OF DESIGNSHEDS EN-18181, BLACK FINISH)
12	BURNER: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
13	DISHWASHER: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
14	36" GAS COOK TOP: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
15	TILE BACK SPLASH: REFER TO A-403 FINISH PLANS.
17	RANGE HOOD WITH PRE-FAB ANUL FIRE SUPPRESSION SYSTEM REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
18	CIBING MOUNTED POT RACK: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
19	COFFEE MAKER: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
20	PROVIDE SLEEVES AS REQUIRED.
21	IN WALL CABLE SLEEVE
22	OPEN SHELVING: REFER TO 2/A-403
23	NOT FILLER: REFER TO A-403 FURNITURE SCHEDULE. PROVIDE 24" MIN. CLEARANCE BETWEEN SPOUT AND COOK TOP.
25	QUARTZ COUNTERTOP
26	QUARTZ COUNTERTOP ISLAND, VERTICAL
27	QUARTZ COUNTERTOP ISLAND, WATERFALL EDGE AT UPPER COUNTER ONLY
28	DISPENSERS AS SHOWN
29	PROVIDE PROVISIONS FOR FUTURE 2ND SET OF WASHER/DEYER.
30	GYPSSUM BOARD, EPOXY PAINTED
31	MCP SINK - PROVIDE STAINLESS STEEL SPLASH GUARD AND MOLDED CORNER. FAUCET FOR SINK TO HAVE BUCKET HOOK. REFER TO PLUMBING FUTURE SCHEDULE.
32	ICE MAKER: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
34	UNDER CABINET LIGHTING REFER TO ELECTRICAL.
36	GYP. PAINTED. REFER TO A-403 FINISH PLANS.
37	DATA FOR PHONE
38	GR OUTLET
39	RUBBER WALL BASE
40	UTILITY SHELF WITH MOP AND BROOM HOLDER
41	POWER/DATA BENCH PENETR
42	SOLID SURFACE COUNTERTOP AND BACKSPLASH
43	PHONE: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
44	WASH LOCATION WITH DRIBBLING IN COUNTER TOP: REFER TO 1/A-403
45	PLUMBING TO CONDENSE AT TRASH CABINET
46	WASHER/DEYER: REFER TO A-403 FURNITURE & EQUIPMENT PLAN.
48	JBOX 40" APP WITH FACEDWAY ABOVE CIBING FOR HIGH SENSITIVITY MICROPHONE: REFER TO ELECTRICAL.
49	CONDUIT/POWER @ SHELF
50	POWER/DATA NEEDED BELOW FOR CPUS
53	STAINLESS STEEL BACKSPASH
54	UTILITY SINK PER PLUMBING
55	FLOOR DRAIN (SEE PLUMBING)
58	PROVIDE SOUND ABSORB. PANELS (AMPT)
59	SHOWER GRAB BAR: REFER TO G-202 FOR ADA REQUIREMENTS
60	CAMERA PER ELECTRICAL

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.

NO.	DATE	REV.	DESCRIPTION

THIS SET OF DRAWINGS IS THE PROPERTY OF PASSERO ASSOCIATES. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF PASSERO ASSOCIATES.

**TOILET ROOMS - ENLARGED PLANS AND DETAILS CONT.**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

TOWN/CITY: Hastings COUNTY: St. Johns STATE: Florida

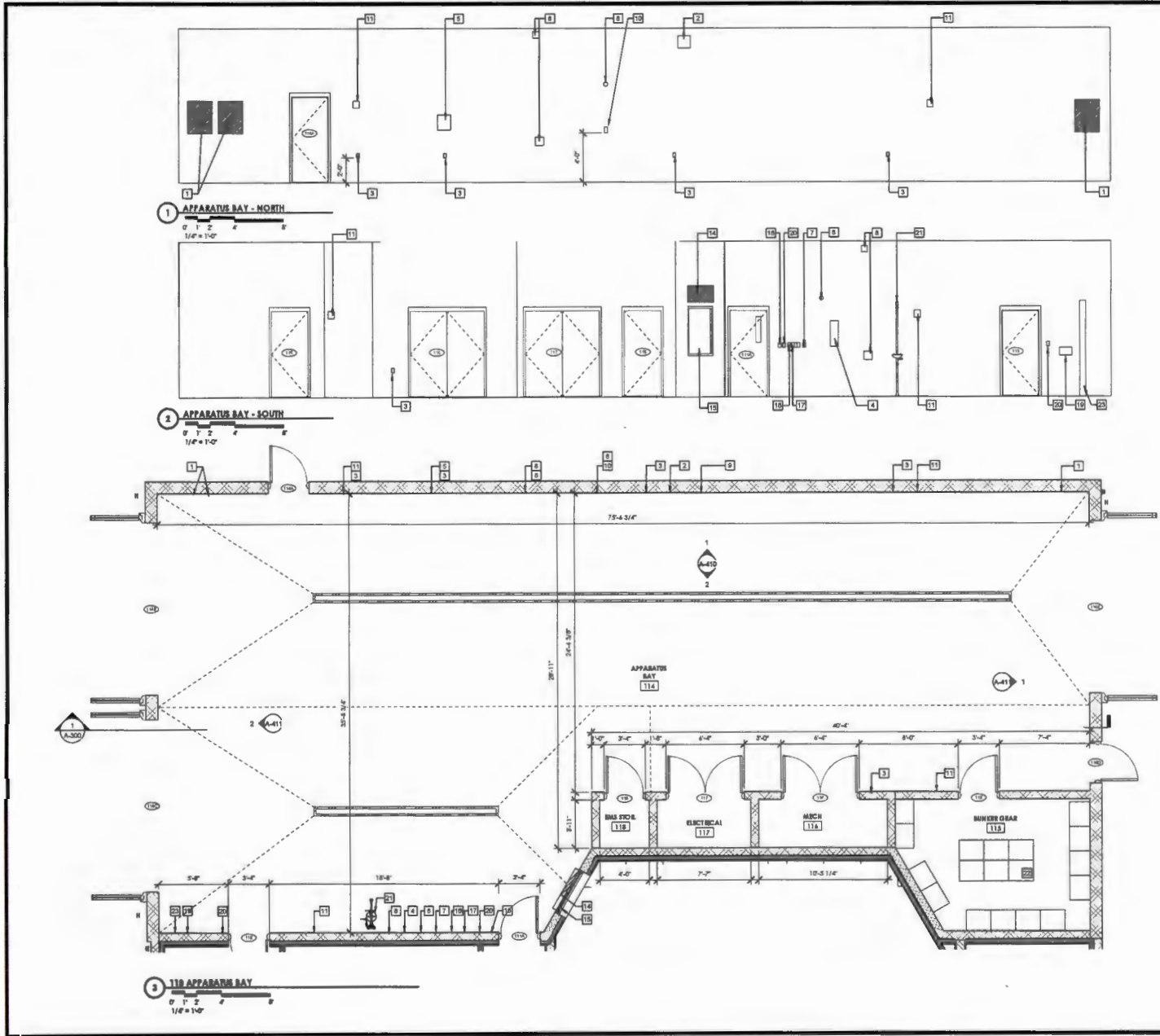
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A-409

NOVEMBER 15, 2024

**BID SET**





**APP BAY GENERAL NOTES:**

1. RECEPTACLES @ BAY 34\"/>

**KEYNOTES - APPARATUS BAY**

1	APPARATUS BAY DOOR CONTROLS (TYP @ 3 LOCATIONS)
2	AUDIBLE / VISUAL FIRE ALARM NOTIFICATION
3	WALL LOCATION
4	AUDIBLE / VISUAL FIRE ALARM NOTIFICATION
5	EXHAUST FAN WINDOW
6	EXHAUST FAN WINDOW
7	EXHAUST FAN WINDOW
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23	EXHAUST FAN WINDOW
24	EXHAUST FAN WINDOW

\* KEYNOTES ARE TYPICAL AND MAY NOT REFLECT ALL INSTANCES.



CLIENT:  
ST. JOHNS COUNTY  
4040 Lawlis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

PROJECT MANAGER	DATE	BY	DESCRIPTION

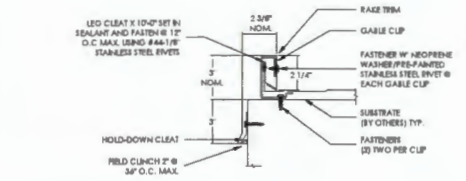
**APPARATUS BAY - ENLARGED PLANS AND DETAILS**  
4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: HUNTSBOURNE  
COUNTY: St. Johns STATE: Florida

20213261.0012

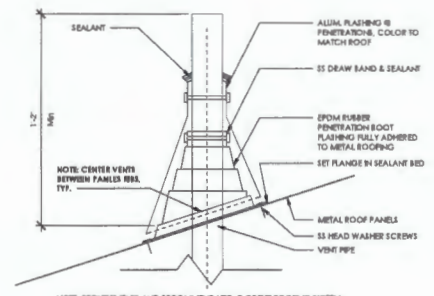
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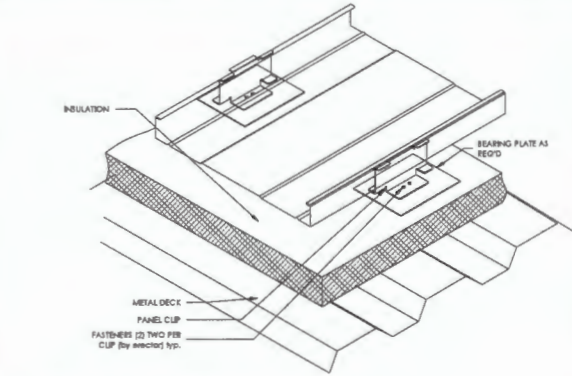
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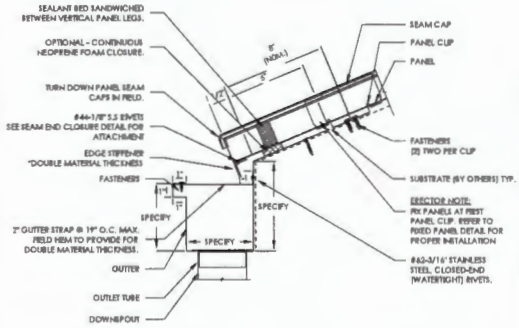
**1 RAKE WITH PANEL CLEAT**  
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'



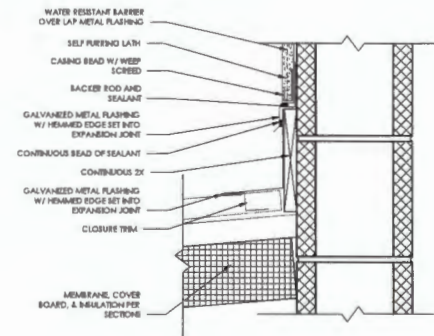
**2 VENT PIPE FLASHING DETAIL**  
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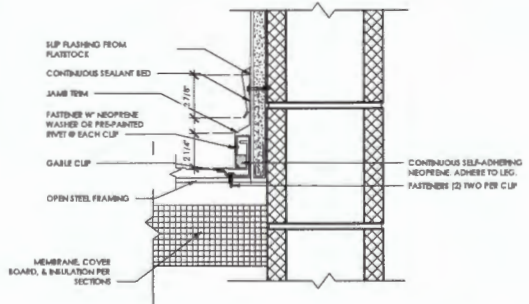
**3 METAL PANEL DETAIL OVER RIGID INSULATION W/ BEARING PLATE**  
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'



**4 EXPANDING RAVE W/ GUTTER**  
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'



**5 EXPANDING SLOPING JAMB**  
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'



**6 EXPANDING SLOPING JAMB**  
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'

STAMP

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

1001 FLORIDA PALM BLVD. SUITE 200  
ST. AUGUSTINE, FL 32084  
PROJECT NUMBER: 20213261.0012  
DESIGN: JACOB PASSERO  
DATE: 11/20/24

NO.	DATE	BY	DESCRIPTION

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**STANDARD METAL ROOF DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFFS OFFICE

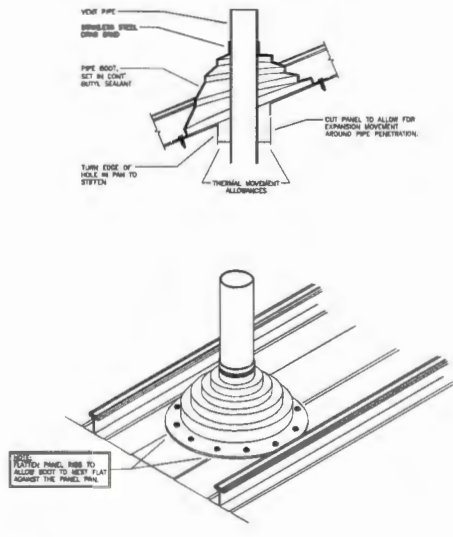
TOWN/CITY: Hastings COUNTY: St. Johns STATE: Florida

PROJECT NUMBER: 20213261.0012

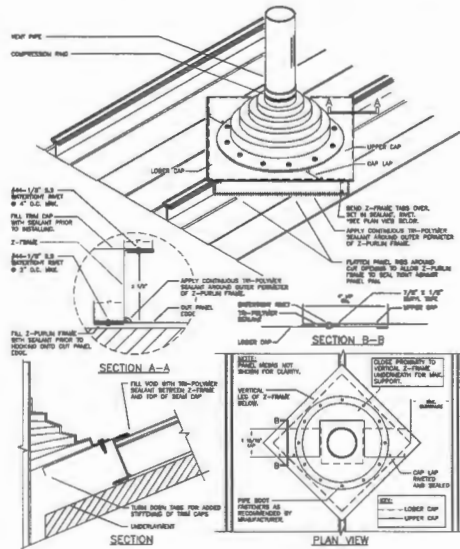
DATE: A-501

DATE: NOVEMBER 15, 2024

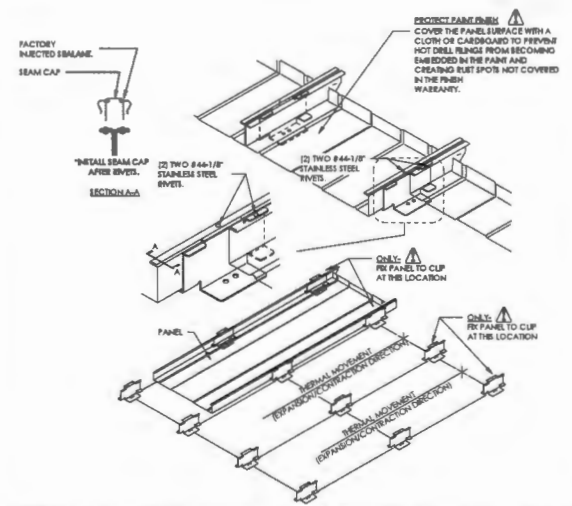
**BID SET**



1 PIPE BOOT DETAIL  
N.L.A.



2 PIPE BOOT THROUGH PANEL PAN  
12\"/>



**SECTION NOTE: FIXED PANEL INSTALLATION METHOD**

- TYPICALLY, PANELS ARE FIXED ALONG THE RIDGE/PEAK CONDITIONS AND PANEL THERMAL MOVEMENT IS DIRECTED TOWARD THE BAVERSELL/VALLEY CONDITIONS.
- THE MECHANICALLY ATTACHED PANELS TO CLIPS AS SHOWN, THESE RINGS WILL BECOME SELF-EMBEDDED IN THE PANEL AND CREATE RUST SPOTS NOT COVERED IN THE FINISH WARRANTY.
- SNAP ON THE SEAM CAP AFTER THE PANEL HAS BEEN RIVETED TO THE PANEL CLIPS. SEE DRAWING.
- USE THE HAND CRIMPING TOOL AND CRIMP THE SEAM CAPS AT THESE FIXED LOCATIONS.
- DO NOT RUN THE MOTORIZED ELECTRIC SEAMING MACHINE OVER THESE FIXED LOCATIONS.

**SECTION NOTE: FIXED PANEL LOCATION EXPLANATION**

- THE FIXED PANEL LOCATIONS ILLUSTRATED ON THE ROOF PLAN DISHSHATE A "FIXED LOCATION" BETWEEN THE PANEL AND PANEL CLIP.
- THIS "FIXED LOCATION" IS A MECHANICAL CONNECTION BETWEEN THESE TWO COMPONENTS, PANEL AND PANEL CLIP.
- A "FIXED LOCATION" CAN ONLY OCCUR AT ONE LOCATION ON EACH PANEL.
- DO NOT ATTACH EACH PANEL CLIP TO THE PANEL.
- THE PANEL MUST BE FIXED MECHANICALLY ATTACHED AT ONE LOCATION AND ALL REMAINING PANEL CLIPS ALONG THE PANEL MUST NOT BE ATTACHED.
- ONCE THE PANEL IS FIXED AT THE ONE LOCATION, THE REMAINING NON-ATTACHED PANEL CLIPS WILL ALLOW PANEL THERMAL MOVEMENT.
- THIS THERMAL MOVEMENT IS EXPANSION AND CONTRACTION OF THE PANEL ALONG ITS ENTIRE LENGTH.

3 FIXED PANEL DETAIL  
2\"/>

**PASSERO**  
engineering architecture

**PROMUS**

**ML+H**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**  
2025 RELEASE UNDER E.O. 14176

PROJECT: ST. JOHNS COUNTY  
PROJECT NO: 2021-0012  
DATE: 01/20/21

NO.	DATE	BY	DESCRIPTION

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**STANDARD METAL ROOF DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: HAWTHORNE

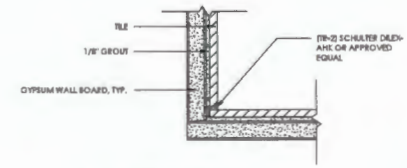
COUNTY: St. Johns STATE: Florida

20213261.0012

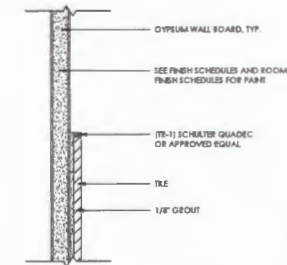
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**BID SET**

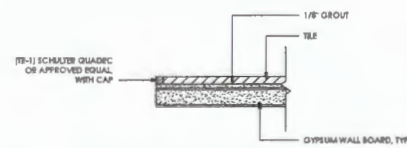
NOVEMBER 15, 2024



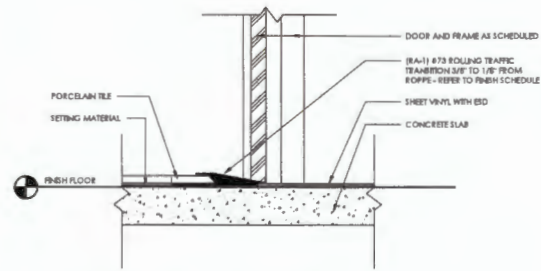
**5 TILE - INSIDE CORNER METAL TRIM**  
0' 1' 2' 3' 4'  
1" = 1'-0"



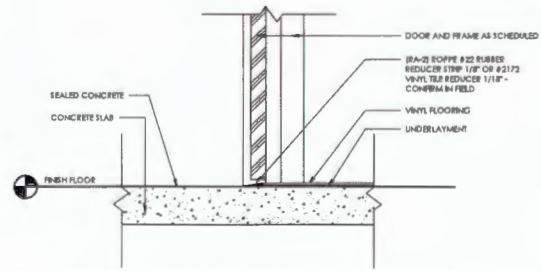
**6 TILE - TOP EDGE METAL TRIM**  
0' 1' 2' 3' 4'  
1" = 1'-0"



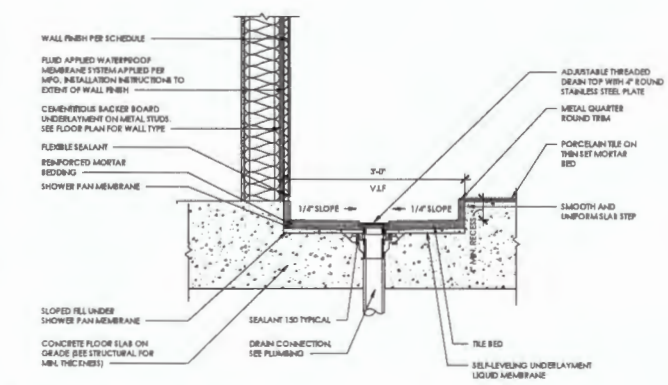
**7 TILE - OUTSIDE CORNER METAL TRIM**  
0' 1' 2' 3' 4'  
1" = 1'-0"



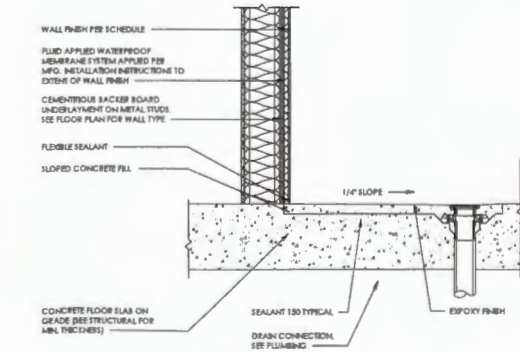
**3 FLOOR TRANSITION - PORCELAIN TILE TO VINYL**  
0' 1' 2' 3' 4'  
1 1/2\"/>



**4 FLOOR TRANSITION - VINYL TO SEALED CONCRETE**  
0' 1' 2' 3' 4'  
1 1/2\"/>



**1 SHOWER DETAIL - RECESSED W/ TILE FLOOR**  
0' 1' 2' 3' 4'  
1" = 1'-0"



**2 SHOWER DETAIL - ROLL IN @ CURB**  
0' 1' 2' 3' 4'  
1" = 1'-0"

**BID SET**

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

PROJECT NUMBER: 20213261.0012  
PROJECT ARCHITECT: PASSERO ASSOCIATES  
DATE: 11/15/2024

NO.	DATE	BY	DESCRIPTION

**SHOWER BASE & TRANSITION DETAILS**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE

COUNTY: St. Johns STATE: Florida  
20213261.0012

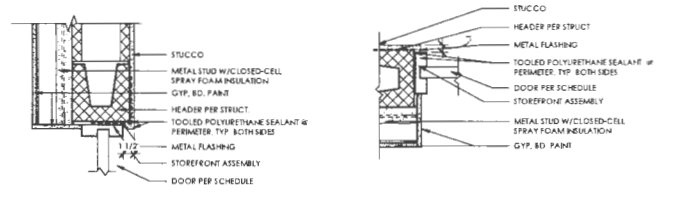
A-503

NOVEMBER 15, 2024

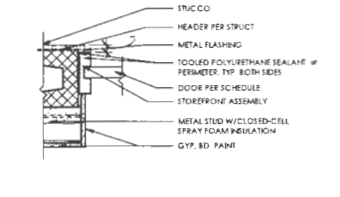




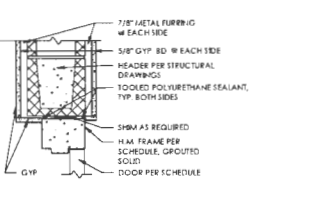
**DOOR HEAD, JAMB AND SILL DETAILS**



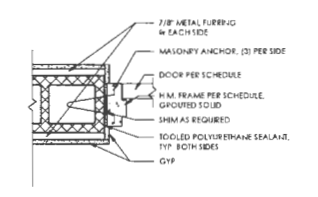
H1 HEAD DETAIL - EXT. CMU WALL W/ STOREFRONT



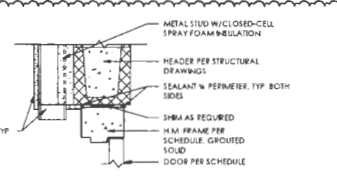
H2 JAMB DETAIL - EXT. CMU WALL W/ STOREFRONT



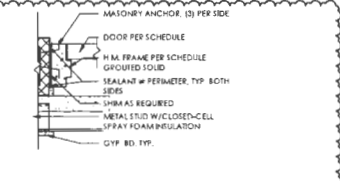
H3 HEAD DETAIL - H.M. FRAME & INTERIOR CMU WALL



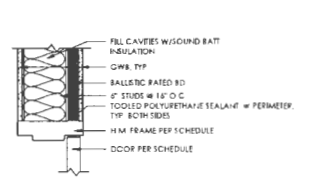
H4 JAMB DETAIL - H.M. FRAME & INTERIOR CMU WALL



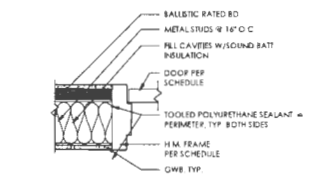
H5 HEAD DETAIL - H.M. FRAME & EXTERIOR CMU WALL



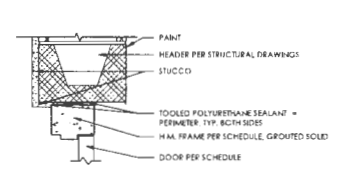
H6 JAMB DETAIL - H.M. FRAME & EXTERIOR CMU WALL



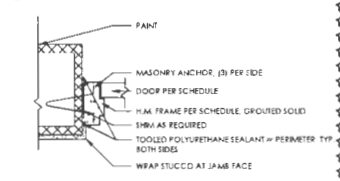
H7 HEAD DETAIL - H.M. FRAME & INTERIOR BALLISTICS RATED METAL STUD WALL



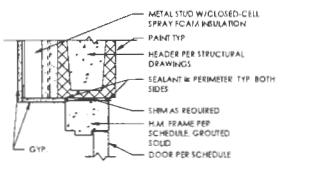
H8 JAMB DETAIL - H.M. FRAME & INTERIOR BALLISTICS RATED METAL STUD WALL



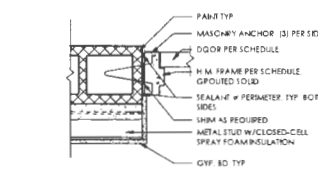
H9 HEAD DETAIL - H.M. FRAME & APP BAY



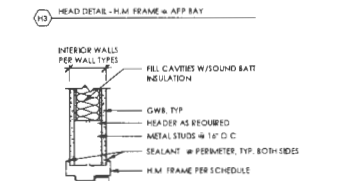
H10 JAMB DETAIL - H.M. FRAME & APP BAY



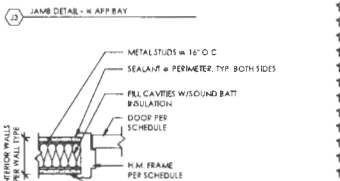
H11 HEAD DETAIL - H.M. FRAME & EXTERIOR CMU WALL



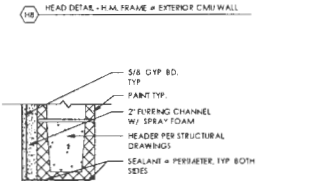
H12 JAMB DETAIL - H.M. FRAME & EXTERIOR CMU WALL



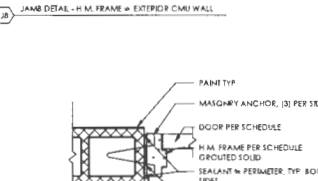
H13 HEAD DETAIL - H.M. FRAME & INTERIOR METAL STUD WALL



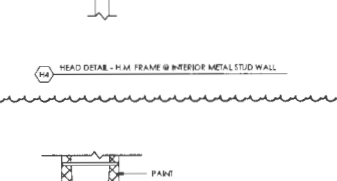
H14 JAMB DETAIL - H.M. FRAME & INTERIOR METAL STUD WALL



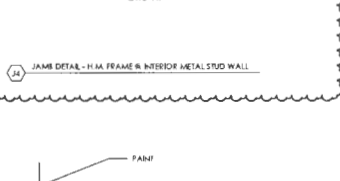
H15 HEAD DETAIL - H.M. FRAME & MECH. CMU WALL



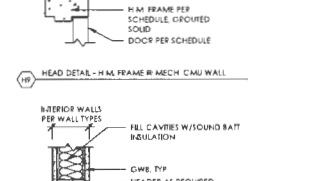
H16 JAMB DETAIL - H.M. FRAME & MECH. CMU WALL



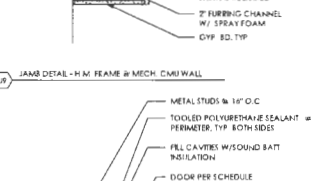
H17 HEAD DETAIL - H.M. FRAME & APP BAY



H18 JAMB DETAIL - H.M. FRAME & APP BAY

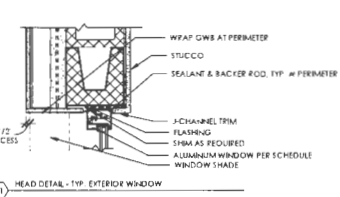


H19 HEAD DETAIL - G.W.B. WRAP & INTERIOR METAL STUD WALL

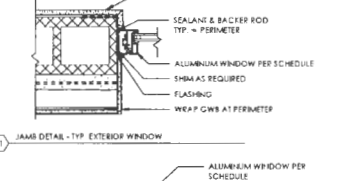


H20 JAMB DETAIL - G.W.B. WRAP & INTERIOR METAL STUD WALL

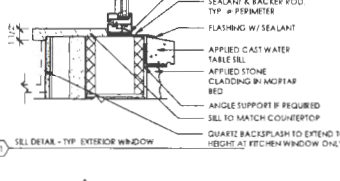
**WINDOW HEAD, JAMB AND SILL DETAILS**



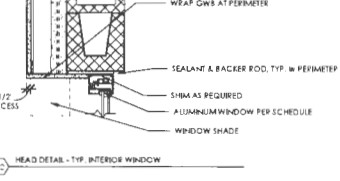
W1 HEAD DETAIL - TYP. EXTERIOR WINDOW



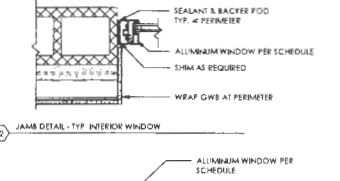
W2 JAMB DETAIL - TYP. EXTERIOR WINDOW



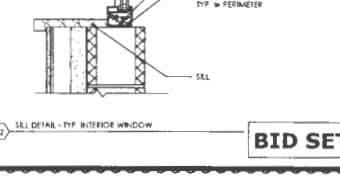
W3 SILL DETAIL - TYP. EXTERIOR WINDOW



W4 HEAD DETAIL - TYP. INTERIOR WINDOW



W5 JAMB DETAIL - TYP. INTERIOR WINDOW



W6 SILL DETAIL - TYP. INTERIOR WINDOW

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

315 S. PALM BLVD., SUITE 201  
ST. AUGUSTINE, FLORIDA 32084  
PHONE: 904.826.1111 FAX: 904.826.1112  
WWW.PASSEROASSOCIATES.COM

NO.	DATE	BY	DESCRIPTION
1	1/21/2024	DM	ADDENDUM NO. 3

NO.	DATE	BY	DESCRIPTION

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**HEAD, JAMB & SILL DETAILS**

4630 MELANIE STREET

FIRE STATION #21 & SHERIFF'S OFFICE

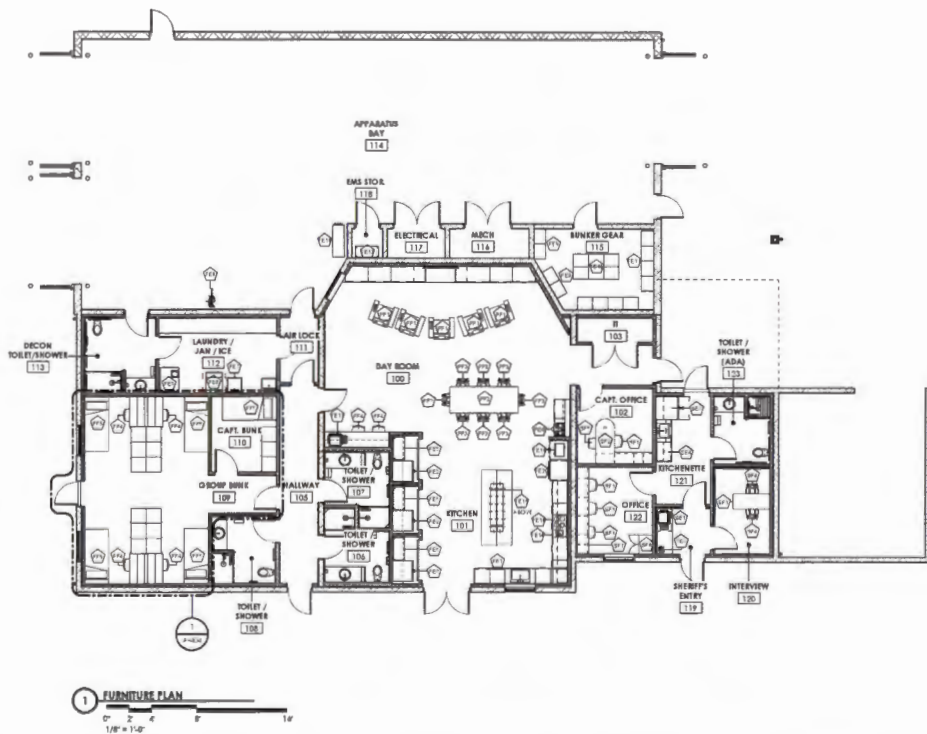
TOWN/CITY: Hastings COUNTY: St. Johns STATE: Florida

20213261.0012

A-602

**BID SET**

NOVEMBER 15, 2024



FURNITURE SCHEDULE - FIRE STATION				
TAG	COUNT	RESPONSIBILITY	DESCRIPTION	REQUIREMENTS
FF1	36	CFCI	RECLINE CHAIR	
FF2	11	CFCI	DINING ROOM TABLE	
FF3	36	CFCI	DINING ROOM CHAIR	
FF4	6	CFCI	DESK CHAIR	
FF5	8	CFCI	DESK BENCH - 34\"/>	

EQUIPMENT SCHEDULE - FIRE STATION				
TAG	COUNT	RESPONSIBILITY	DESCRIPTION	REQUIREMENTS
FE1	1	CFCI	24\"/>	
FE2	3	CFCI	34\"/>	
FE3	1	CFCI	STACKED WIRE RACKER - ELECTRIC DRIVER WITH PET PUMP, NUMBER 1 FAST CYCLE DRAIN, 3-YEAR WARRANTY	REQUIRES POWER, HOT/COLD DOMESTIC WATER, & DRAIN
FE4	2	CFCI	STAINLESS STEEL AUTOMATIC COFFEE MAKER	REQUIRES POWER & DOMESTIC WATER 3/4\"/>
FE5	6	CFCI	WIRE FAMILY BINS/END	32\"/>
FE6	1	CFCI	ICE MAKER	AVANTCO ICE MAK-A-530 A 30\"/>
FE7	1	CFCI	STREET CAME	REFER TO PLUMBING SYSTEM SCHEDULES
FE8	1	CFCI	EMERGENCY EYE WASH & SHOWER STATION	GUARDIAN Q1994 REFER TO PLUMBING DRAWINGS
FE9	2	CFCI	WIRE BUNKER GEAR LOCKERS (8 FLOOR MOUNTED)	READY RACK PPS-4/24 SEC (BUNKER)
FE11	2	CFCI	WIRE BUNKER GEAR LOCKERS (4 FLOOR MOUNTED)	READY RACK PPS-3/24 SEC (BUNKER)
FE12	2	CFCI	WIRE BUNKER GEAR LOCKERS (2 FLOOR MOUNTED)	READY RACK PPS-6/24 SEC (BUNKER)
FE13	1	CFCI	4 POST, STAINLESS STEEL ADJUSTABLE SHELVES	36\"/>
FE14	3	CFCI	FABR READY RESEMBLING PAINTS/COATERS	ACCUREX 3980-86
FE15	1	CFCI	CLEAN HAND PDI RACK	SAGLEGROUP CMX03P
FE16	1	CFCI	CRAPPAHSH WOOD BENCH	CRAPPAHSH 1000 10088 25.25\"/>
FE17	1	CFCI	COPY MACHINE	OUTLET DATA REQUIRED
FE18	1	CFCI	GAZ BANGBOP	10CM DECPH 24\"/>
FE19	1	CFCI	STAINLESS STEEL MICROWAVE WITH CHROME TRIM	DACCOR DCCOVERY 24\"/>
FE20	1	CFCI	DOUBLE OVEN	REQUIRE 30\"/>

FURNITURE SCHEDULE - SHERIFFS OFFICE				
TAG	COUNT	RESPONSIBILITY	DESCRIPTION	REQUIREMENTS
SF1	4	CFCI	DESK CHAIR	
SF2	1	CFCI	DESK	
SF3	1	CFCI	WIRE BUNKER BENCH/STAIR	
SF4	2	CFCI	INTERVIEW ROOM SIDE CHAIR	
SF5	3	CFCI	OFFICE QUESET CHAIR	
SF6	1	CFCI	HANDED ERGONOMIC CHAIR WITH LATERAL PULL	
SF7	2	CFCI	INTERVIEW CHAIR	

EQUIPMENT SCHEDULE - SHERIFFS OFFICE				
TAG	COUNT	RESPONSIBILITY	DESCRIPTION	REQUIREMENTS
SE1	3	CFCI	COPIER MACHINE	OUTLET DATA REQUIRED
SE2	1	CFCI	PHONE	OUTLET DATA REQUIRED
SE3	1	CFCI	34\"/>	
SE4	1	CFCI	STAINLESS STEEL MICROWAVE WITH CHROME TRIM	DACCOR 24\"/>

NOTES:  
 CFCI OWNER FURNISH, OWNER INSTALL  
 CFCE OWNER FURNISH, CONTRACTOR INSTALL  
 CFCI CONTRACTOR FURNISH, CONTRACTOR INSTALL

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CLIENT:  
 ST. JOHNS COUNTY  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**Passero Associates**  
 2001 COLLEGE BLVD, SUITE 201  
 ST. AUGUSTINE, FL 32087  
 PROJECT NUMBER: 20213261.0012  
 PROJECT ARCHITECT: JAMES W. WILSON  
 DESIGNER: JAMES W. WILSON

NO.	DATE	BY	DESCRIPTION

**FURNITURE & EQUIPMENT PLAN**  
 4630 MELANIE STREET  
 FIRE STATION #21 & SHERIFFS OFFICE  
 COUNTY: St. Johns STATE: Florida

20213261.0012

A-603

**BID SET**

NOVEMBER 15, 2024

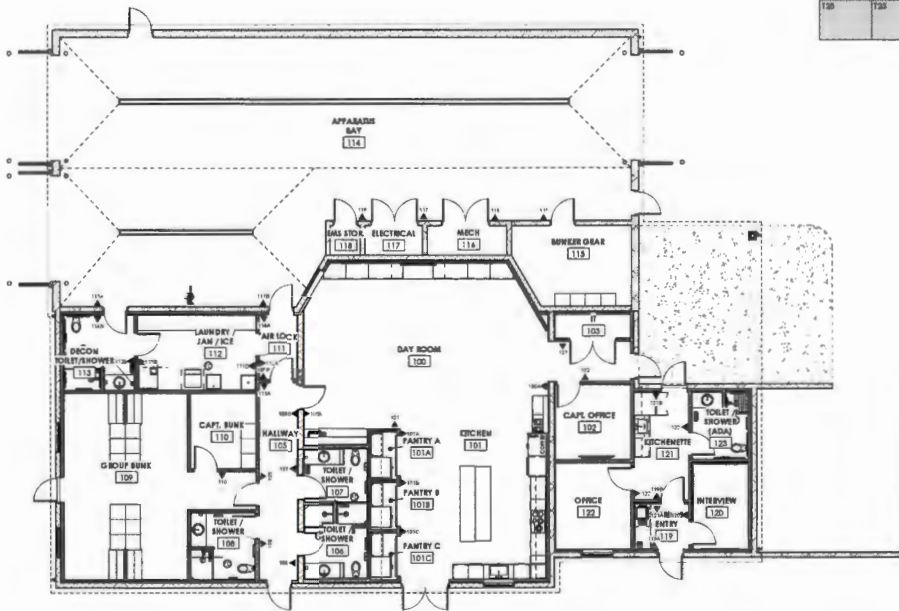


**SIGNAGE GENERAL NOTES:**

1. A-604 AND A-605 ARE INTENDED TO CONVEY BASIC PROJECT REQUIREMENTS AND DESIGN INTENT. CONTRACTORS TO PROVIDE SIGNAGE FOR ALL SPACES.
2. SEE SHEET A-604 FOR SIGN PLACEMENT GUIDANCE. SEE SHEET A-606 FOR SIGN TYPES AND DETAILS.
3. PRIOR TO FABRICATION, SUBMIT SIGNAGE SCHEDULE TO OWNER/ARCHITECT FOR FINAL REVIEW AND APPROVAL OF ALL ROOM NUMBERS AND NAMES.
4. WHERE PANEL SIGNS ARE MOUNTED ON GLASS WISOH OR SIDE LITES, PROVIDE BACK PANEL ON OPPOSITE SIDE OF GLASS TO CONCEAL MOUNTING.
5. WHERE PANEL SIGNS IS INDICATED TO BE INSTALLED ON ONE LEAF OF A PAIR OF DOORS, THE DESIGN INTENT IS FOR THE SIGN TO BE INSTALLED ON THE INACTIVE LEAF.

SIGNAGE SCHEDULE				
SGN LOCATION #	SGN ROOM #	SGN TYPE	SGN INFORMATION	COMMENTS
118	118	A1	LINE 1 - 118 LINE 2 - BUS LINE 3 - STORAGE	
<b>SHERIFF'S OFFICE</b>				
119A	119	B1	LINE 1 - FOR YOUR SAFETY LINE 2 - MARCHING LINE 3 - OCCUPANCY LINE 4 - IS LIMITED TO LINE 5 - LINE 6 - PERSON ON	(1) IS SIGN TO BE LOCATED AT EACH SHIFFER DOOR INSIDE ASSOCIATED ROOM. VERIFY MARCHING OCCUPANCY LOAD WITH ARCHITECT/FFIRE MARSHALL
119B	119	A1	LINE 1 - 119	
120	120	A3	LINE 1 - LOBBY LINE 2 - RECEPTION	
121A	121	A1	LINE 1 - 121 LINE 2 - CIGARETTE	
121B	121	B1	LINE 1 - FOR YOUR SAFETY LINE 2 - MARCHING LINE 3 - OCCUPANCY LINE 4 - IS LIMITED TO LINE 5 - LINE 6 - PERSON ON	(1) IS SIGN TO BE LOCATED AT EACH SHIFFER DOOR INSIDE ASSOCIATED ROOM. VERIFY MARCHING OCCUPANCY LOAD WITH ARCHITECT/FFIRE MARSHALL
122	122	PL1	LINE 1 - 122 LINE 2 - OFFICE	
123	123	SH1	LINE 1 - M/W/H/C LINE 2 - RESTROOM LINE 3 - SHOWER	

SIGNAGE SCHEDULE				
SGN LOCATION #	SGN ROOM #	SGN TYPE	SGN INFORMATION	COMMENTS
<b>FIRE STATION</b>				
100A	100	A1	LINE 1 - 100 LINE 2 - DAYROOM	
101	101	A3	LINE 1 - 101 LINE 2 - SECTION	
101A	101A	A1	LINE 1 - 101A LINE 2 - PANTRY A	
101B	101B	A1	LINE 1 - 101B LINE 2 - PANTRY B	
101C	101C	A1	LINE 1 - 101C LINE 2 - PANTRY C	
102	102	A3	LINE 1 - 102 LINE 2 - CAPTAIN LINE 3 - OFFICE	
103	103	A1	LINE 1 - 103 LINE 2 - II	SEE GENERAL NOTE 5
103A	103	A1	LINE 1 - 103 LINE 2 - HALLWAY	
105B	105	A1	LINE 1 - 105 LINE 2 - HALLWAY	
106	106	SH2	LINE 1 - HALLWAY LINE 2 - RESTROOM LINE 3 - SHOWER	
107	107	SH2	LINE 1 - M/W SYMBOLS LINE 2 - RESTROOM LINE 3 - SHOWER	
108	108	SH1	LINE 1 - M/W SYMBOLS LINE 2 - RESTROOM LINE 3 - SHOWER	
109	109	A1	LINE 1 - 109 LINE 2 - BUNK LINE 3 - ROOM	
110	110	A1	LINE 1 - 110 LINE 2 - CARTRIDGE LINE 3 - BUNK	
111A	111	A1	LINE 1 - 111	
111B	111	A3	LINE 1 - 111 LINE 2 - AIR LOCK	
111C	111	A1	LINE 1 - 111 LINE 2 - AIR LOCK	
112A	112	A1	LINE 1 - 112 LINE 2 - HALLWAY	
112B	112	A1	LINE 1 - 112 LINE 2 - LAUNDRY	
112C	112	SH1	LINE 1 - M/W/H/C LINE 2 - RESTROOM LINE 3 - SHOWER	
114a	114	A3	LINE 1 - 114 LINE 2 - APPARATUS LINE 3 - BAY	
114b	114	A1	LINE 1 - 114 LINE 2 - APPARATUS LINE 3 - BAY	
115	115	SH1	LINE 1 - 115 LINE 2 - SHOWER LINE 3 - BAY	
116	116	A1	LINE 1 - 116	SEE GENERAL NOTE 5
117	117	A3	LINE 1 - 117 LINE 2 - MECHANICAL	SEE GENERAL NOTE 5



**1 SIGNAGE INSTALLATION PLAN**  
0 1 2 4  
1/8" = 1'-0"

CLIENT:  
ST. JOHNS COUNTY  
#040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

4375 GINA COLA RD, SUITE 200 JWC P04-014  
ST. AUGUSTINE, FL 32086

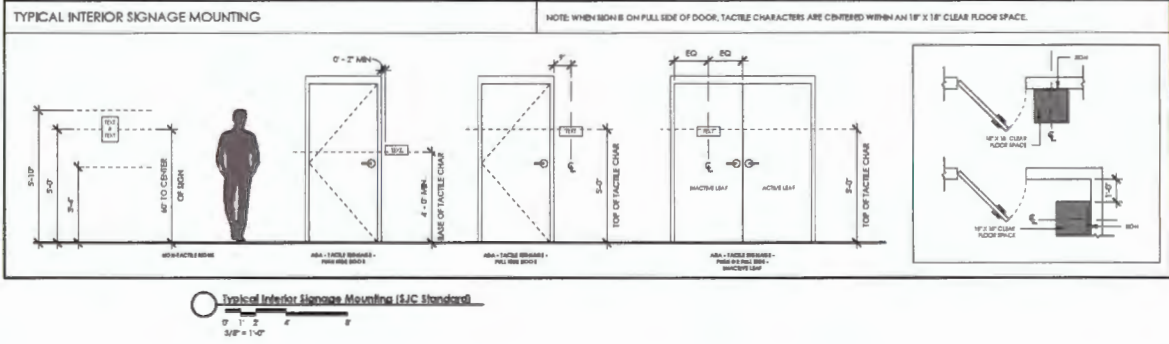
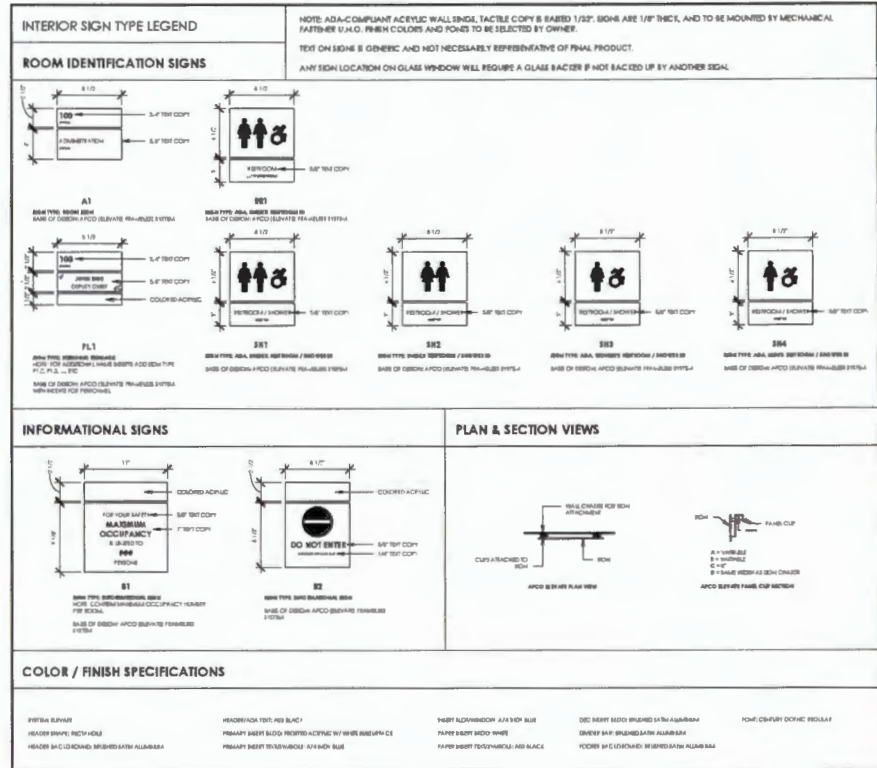
NO.	DATE	BY	DESCRIPTION

**INTERIOR SIGNAGE - INSTALLATION PLAN**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hastings  
COUNTY: St. Johns STATE: Florida

20213261.0012  
A-604

**BID SET**  
NOVEMBER 15, 2024



**PASSERO**  
engineering architecture

**PROMUS**

**ML+H**

STAMP

CLIENT:  
ST. JOHNS COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

NO.	DATE	BY	DESCRIPTION

**INTERIOR SIGNAGE LEGEND**

4630 MELANIE STREET  
FIRE STATION #21 & SHERIFF'S OFFICE  
TOWN/CITY: Hawthorn  
COUNTY: St. Johns STATE: Florida

20213261.0012

A-605

**BID SET**

NOVEMBER 15, 2024





**SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS**

THE FOLLOWING TABLE COMPREHENSIVELY IDENTIFIES THE SPECIAL INSPECTIONS REQUIRED BY THE FDOT'S "A" ADDENDUM TO THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND THE FDOT'S SPECIAL INSPECTION CHECKLIST REQUIRED QUANTIFICATION OF ALL PERSONS BEING EMPLOYED IN SPECIAL INSPECTION WORK SHALL ADDITIONALLY SET FORTH THE FDOT'S

LABORERS - REQUIREMENTS FOR SPECIAL INSPECTION & TESTING				STEEL CONSTRUCTION - REQUIREMENTS FOR SPECIAL INSPECTION & TESTING			
AREA OF INSPECTION & TESTING	FREQUENCY OF INSPECTION OR TESTING	REFERENCE STANDARD	IBC REFERENCE	AREA OF INSPECTION & TESTING	FREQUENCY OF INSPECTION OR TESTING	REFERENCE STANDARD	IBC REFERENCE
1. REINFORCING BARS SHALL BE PLACED AS SHOWN ON THE REINFORCING PLAN AND ALL BARS SHALL BE FULLY DEVELOPED AND PROTECTED FROM CORROSION.	FREQUENT		705.2	1. FABRICATED STEEL MEMBERS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS AND ALL WELDS SHALL BE FULLY PENETRATING.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	705.2
2. REINFORCING BARS SHALL BE FULLY DEVELOPED AND PROTECTED FROM CORROSION.	FREQUENT			2. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
3. REINFORCING BARS SHALL BE FULLY DEVELOPED AND PROTECTED FROM CORROSION.	FREQUENT			3. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
4. REINFORCING BARS SHALL BE FULLY DEVELOPED AND PROTECTED FROM CORROSION.	FREQUENT			4. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
5. REINFORCING BARS SHALL BE FULLY DEVELOPED AND PROTECTED FROM CORROSION.	FREQUENT			5. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
<b>CAST-IN-PLACE CONCRETE - REQUIREMENTS FOR SPECIAL INSPECTION &amp; TESTING</b>				<b>STEEL CONSTRUCTION - REQUIREMENTS FOR SPECIAL INSPECTION &amp; TESTING</b>			
1. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	1. INSPECT FABRICATED STEEL MEMBERS FOR WELDS AND CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	705.2
2. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	2. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
3. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	3. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
4. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	4. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
5. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	5. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
6. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	6. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
7. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	7. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
8. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	8. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
9. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	9. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
10. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	10. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
11. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	11. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
12. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT	ACI 318 CH 9 & 22.2, 23.2, 23.3	1908.4	12. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
<b>WALDORE CONSTRUCTION - REQUIREMENTS FOR SPECIAL INSPECTION &amp; TESTING</b>				<b>STEEL CONSTRUCTION - REQUIREMENTS FOR SPECIAL INSPECTION &amp; TESTING</b>			
1. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT		705.4	1. FABRICATED STEEL MEMBERS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS AND ALL WELDS SHALL BE FULLY PENETRATING.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	705.2
2. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			2. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
3. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			3. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
4. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			4. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
5. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			5. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
6. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			6. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
7. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			7. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
8. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			8. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
9. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			9. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
10. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			10. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
11. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			11. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	
12. INSPECT REINFORCEMENT INCLUDING PRECASTING, FORMS AND REINFORCEMENT PLACEMENT.	FREQUENT			12. WELDS SHALL BE FULLY PENETRATING AND ALL WELDS SHALL BE FULLY WELDED TO THE DESIGNATED CONNECTIONS.	FREQUENT	AS FABRICATED CERTIFICATION AND QUALITY CONTROL PROGRAM	

**STATEMENT OF SPECIAL INSPECTIONS**

LOCATION:	Hawthorne, FL
OWNER:	St. John's County
DESIGN PROFESSIONAL'S CHANGE:	Patrick J. Williams, P.E. 18

The statement of special inspections is submitted as a contract for permit issuance in accordance with the special inspection and testing requirements of the applicable building code. It is intended to be used by the contractor to coordinate with the special inspector and the building official. The special inspector shall be responsible for conducting special inspections and testing in accordance with the applicable building code. The building official shall be responsible for reviewing and approving the special inspection and testing program. The special inspector shall be responsible for conducting special inspections and testing in accordance with the applicable building code. The building official shall be responsible for reviewing and approving the special inspection and testing program. The special inspector shall be responsible for conducting special inspections and testing in accordance with the applicable building code. The building official shall be responsible for reviewing and approving the special inspection and testing program.

**SCHEDULE OF INSPECTION AND TESTING AGENCIES**

SPECIAL INSPECTION AGENCY	NAME	ADDRESS	PHONE (FL)
Special Inspection Contractor	TBD	TBD	(904) 000-0000
Inspector	TBD	TBD	(904) 000-0000

**STATEMENT OF CONTRACTORS RESPONSIBILITY**

The contractor shall be responsible for providing all necessary information to the special inspector and the building official. The contractor shall be responsible for coordinating with the special inspector and the building official to ensure that all special inspections and testing are completed in a timely manner. The contractor shall be responsible for providing all necessary information to the special inspector and the building official. The contractor shall be responsible for coordinating with the special inspector and the building official to ensure that all special inspections and testing are completed in a timely manner.

**QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS**

The qualifications of all personnel performing special inspection and testing activities are subject to the approval of the building official. The qualifications of all inspectors and testing technicians shall be provided to the building official for review and approval.

AGENCY	DESCRIPTION	REFERENCE
ACI-308	Concrete Field Testing Technician - Grade 1	ASCE 18.10.2.1
ACI-308.2	Concrete Construction Field Inspector	ASCE 18.10.2.1
ACI-308.3	Concrete Testing Technician - Grade 1	ASCE 18.10.2.1
ACI-308.4	Concrete Testing Technician - Grade 2	ASCE 18.10.2.1
ASCE-18	Concrete Inspection and Testing Technician	ASCE 18.10.2.1
ASCE-18.1	Structural Steel Inspection Technician	ASCE 18.10.2.1
ASCE-18.2	Structural Steel and Welding Inspection Technician	ASCE 18.10.2.1
ASCE-18.3	Specialty Testing Inspection Technician	ASCE 18.10.2.1
ASCE-18.4	Reinforced Concrete Inspection Technician	ASCE 18.10.2.1



CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**

NO.	DATE	DESCRIPTION

**SPECIAL INSPECTIONS**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION

TOWNSHIP: Hawthorne  
COUNTY: SJC STATE: Florida

20213261.0012

S-003

NOVEMBER 15, 2024

**BID SET**

**FOUNDATION LEGEND**

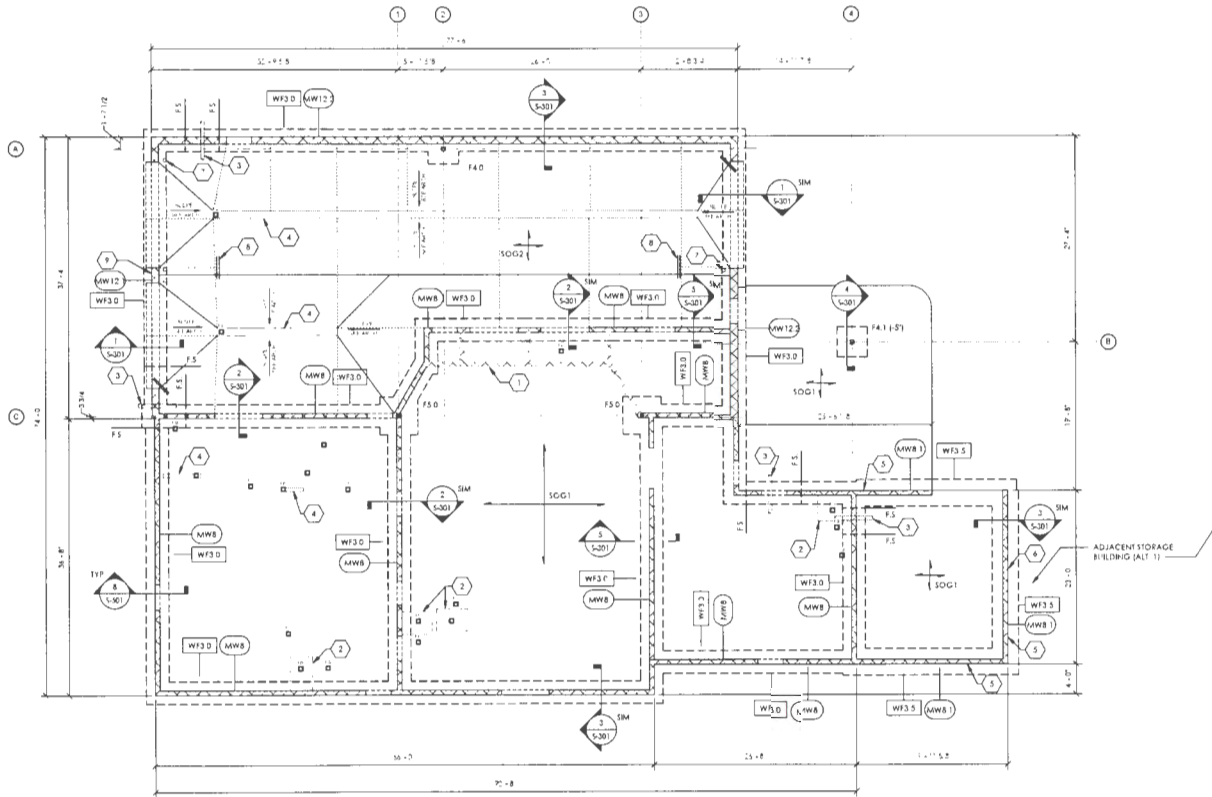
	SOGR - DENOTES SLAB-ON-GRADE MARK (SEE SLAB-ON-GRADE SCHEDULE)
	FB - DENOTES FOOTING MARK (SEE FOOTING SCHEDULE)
	F-T - DENOTES TOP OF FOOTING ELEVATION WITH RESPECT TO DATUM ELEVATION = 0'-0"
	MWB - DENOTES MASONRY WALL MARK (SEE MASONRY WALL SCHEDULE)
	WFB - DENOTES WALL FOOTING MARK (SEE WALL FOOTING SCHEDULE)
	W-T - DENOTES TOP OF WALL FOOTING ELEVATION WITH RESPECT TO DATUM ELEVATION = 0'-0"
	F.D - DENOTES FLOOR DRAIN. SEE MEP DRAWINGS FOR MORE INFO
	FT - DENOTES FOOTING TIE. SEE TYPICAL DETAIL
	----- DENOTES CONSTRUCTION JOINTS

**FOUNDATION PLAN NOTES**

- SEE SHEET S-001 THROUGH S-003 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS.
- SEE SHEET S-000 SERIES FOR TYPICAL DETAILS.
- FINISH FLOOR REFERENCE ELEVATION = 0'-0" = TOP OF SLAB. REFER TO CIVIL DRAWINGS FOR SITE SPECIFIC ELEVATIONS ABOVE SEA LEVEL.
- TOP OF FOOTING IS (F-T) BELOW FINISH FLOOR REFERENCE ELEVATION, UNLESS OTHERWISE NOTED ON PLAN AT (F-T) RELATIVE TO TOP OF FINISHED FLOOR REFERENCE ELEVATION.
- COORDINATE DOOR WIDTHS AND LOCATING DIMENSIONS WITH ARCH.
- COORDINATE WITH CIVIL, ARCH AND MEP DRAWINGS ON ANY REQUIRED PENETRATIONS THROUGH FOUNDATION WALLS OR FOOTINGS.

**FOUNDATION PLAN KEYNOTES**

- ARCH PARTITION WALLS. SEE ARCH AND TYP DETAIL.
- DEPRESSED FLOOR SLAB. SEE ARCH AND TYP DETAIL.
- FOUNDATION WALL PIPE PENETRATION. SEE MEP FOR MORE INFO AND TYP DETAILS.
- TRENCH DRAIN. SEE MEP AND ARCH FOR MORE INFO AND TYP DETAILS.
- EXTERIOR MECH YARD CHAU WALLS. SEE ARCH AND CIVIL DRAWINGS.
- IF ALL 1 IS SELECTED, THE WALL IS TO BE DAMPTED.
- ROULATED. SEE ARCH AND TYP ROLLERS DETAIL FOR MORE INFO.
- REINFORCE CORNER BAP REINFORCEING. PER TYPICAL DETAIL. NOT ALL SHOWN FOR CLARITY.
- IRE (2) #8 BARS @ 8" OC FOR 2'-0" STRIP BETWEEN DOORS. EXTEND TO TOP OF WALL.



**1 FOUNDATION/SLAB PLAN**



CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**

4499 COLLEGE AVE., SUITE 200 (SIC-01)  
ST. AUGUSTINE, FL 32086  
PROJECT NUMBER: 20213261.0012  
DESIGNED BY: GIBBER  
DRAWN BY: PASPERO

NO.	DATE	BY	DESCRIPTION

**FOUNDATION/SLAB PLAN**

4630 MELANIE STREET  
SIC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hastings  
COUNTY: SIC STATE: Florida

PROJECT NO.: 20213261.0012

FOUNDATION: S-101

DATE: NOVEMBER 15, 2024

**BID SET**

NO.	DATE	BY	DESCRIPTION

**ROOF FRAMING PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRM STATION

TOWNSHIP: Hastings  
COUNTY: SJC STATE: Florida

20213261.0012

S-102

NOVEMBER 15, 2024

**FRAMING LEGEND**

- RD#** RD# - DENOTES ROOF DECK MARK. (SEE ROOF DECK SCHEDULE)  
ARROWS DENOTE SPAN DIRECTION
- FDR#** FDR# - DENOTES ELEVATED FLOOR SLAB MARK. (SEE ELEVATED FLOOR SLAB SCHEDULE)  
ARROWS DENOTE SPAN DIRECTION
- #'-#"** #'-#"- DENOTES SPOT ELEVATION WITH RESPECT TO DATUM ELEVATION = 0'-0"
- (ABOVE/BELOW)** DENOTES BEAM ABOVE OR BELOW PLAN ELEVATION (SEE PLAN NOTES)
- (#'-#")** DENOTES BEAM AT ELEVATION ABOVE OR BELOW PLAN ELEVATION (SEE PLAN NOTES)
- (MW#)** MW# - DENOTES MASONRY WALL MARK. (SEE MASONRY WALL SCHEDULE)
- (#'-#")** #'-#"- DENOTES TOP OF BEARING WALL ELEVATION WITH RESPECT TO DATUM ELEVATION = 0'-0"
- L#** L# - DENOTES MASONRY OR STEEL LINTEL. (SEE LINTEL SCHEDULE)

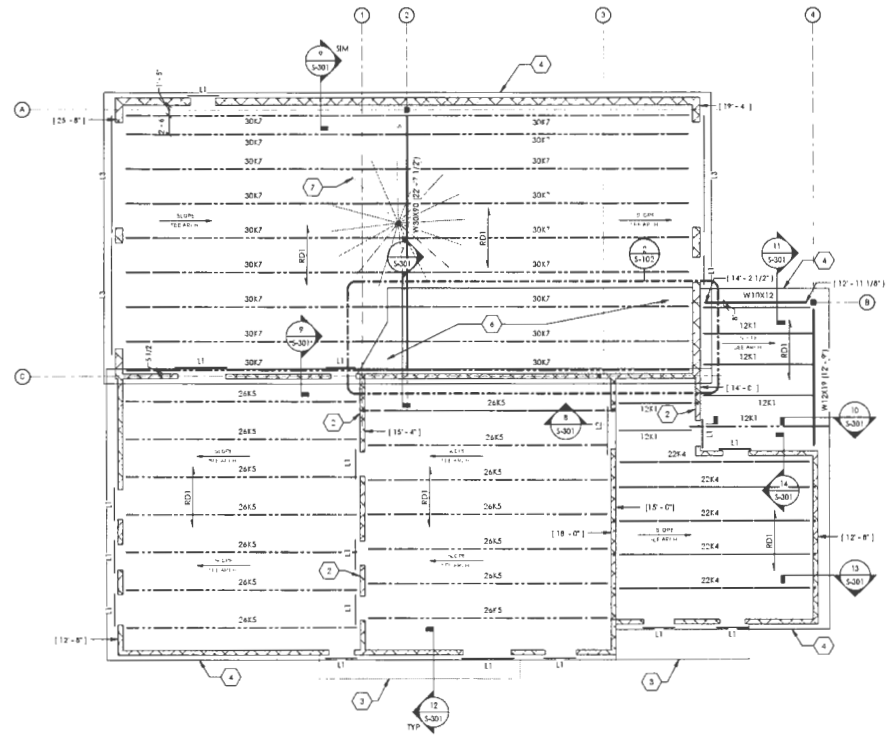
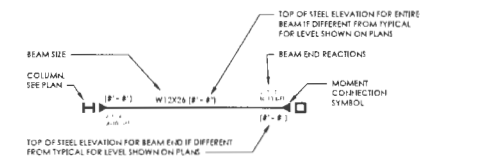
**ROOF FRAMING PLAN NOTES**

1. SEE SHEET S-001 THROUGH S-003 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS
2. SEE SHEET S-002 FOR TYPICAL DETAILS
3. TOP OF STEEL ELEVATION IS DENOTED ON PLAN ABOVE DATUM ELEVATION = 0'-0"
4. SEE ARCH AND MEP DRAWINGS FOR REQUIRED THRU-DECK OPENINGS
5. UNLESS NOTED OTHERWISE, ALL STEEL JOINTS ARE TO BE SPACED EQUALLY BETWEEN WALLS/GIRDERS. JOIST SPACING SHALL NOT EXCEED 5'-0" OC
6. STEEL JOIST BEARING ELEVATION = TOP OF WALL BEARING ELEVATION + BEARING PLATE ENG. DIM. TYP.

**ROOF FRAMING PLAN KEYNOTES**

1. CMU WALL ABOVE. SEE SECTION.
2. STAGGER STEEL JOISTS AT SHARED BEARING WALLS. TYP.
3. PRE-ENGINEERED CANOPY. SEE ARCH DRAWINGS AND MANUF. REQUIREMENTS.
4. METAL ROOF DECK OVERHANG. USE OUTRIGGERS SIMILAR TO AISI-301 OR JOIST TOP CHORD EXTENSION. TYP.
5. ARCH PARTITION WALLS. SEE ARCH AND TYP. TOP OF WALL BEARING DETAIL.
6. LIGHT STORAGE ELEVATED FLOOR BELOW. SEE FRAMING PLAN OF THIS SHEET.
7. IF ALT. 4 IS SELECTED, FAN WITH MAX. CONCENTRATED LOAD OF 185 LBS TO BE INSTALLED. COORD. FINAL LOCATION WITH JOIST MANUF.

**BEAM LEGEND**



**1 ROOF FRAMING PLAN**

1/8" = 1'-0"

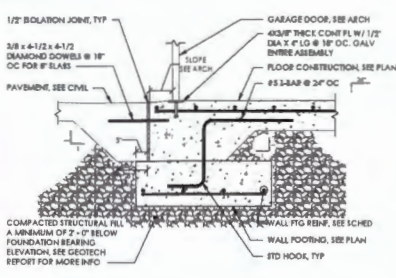
**LIGHT STORAGE FRAMING PLAN NOTES:**

1. SEE SHEET S-001 THROUGH S-003 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS
2. SEE SHEET S-002 FOR TYPICAL DETAILS
3. TOP OF STEEL ELEVATION = +14'-8" ABOVE DATUM ELEVATION = 0'-0". UNLESS OTHERWISE NOTED ON PLAN AS (+/- X'-#") RELATIVE TO TOP OF STEEL REFERENCE ELEVATION.
4. SEE ARCH AND MEP DRAWINGS FOR REQUIRED THRU-DECK OPENINGS
5. TEMPORARY SCHEDING OF DECK IS REQUIRED UNTIL SLAB HAS REACHED MINIMUM 28-DAY STRENGTH.

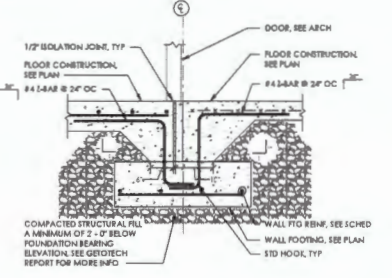
**2 LIGHT STORAGE FRAMING PLAN**

1/4" = 1'-0"

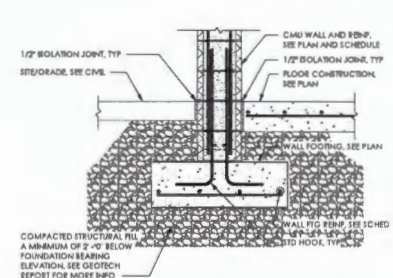
**BID SET**



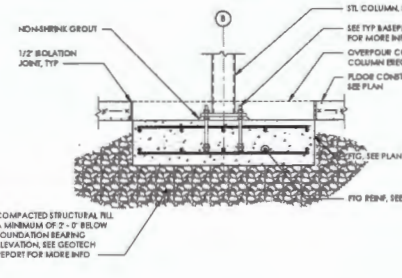
**1 FOUNDATION SECTION**  
3/4" = 1'-0"



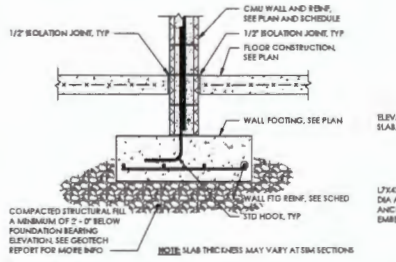
**2 FOUNDATION SECTION**  
3/4" = 1'-0"



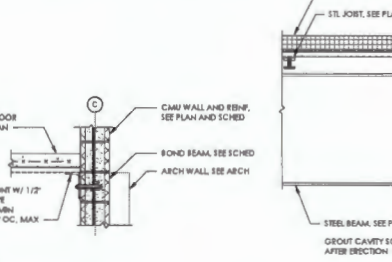
**3 FOUNDATION SECTION**  
3/4" = 1'-0"



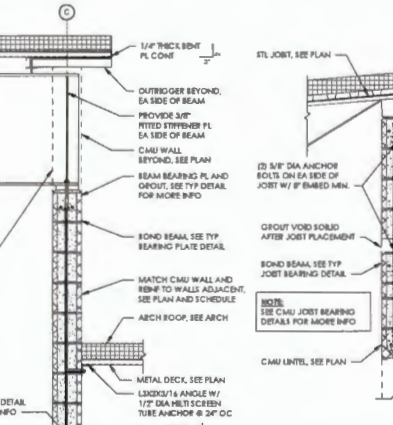
**4 FOUNDATION SECTION**  
3/4" = 1'-0"



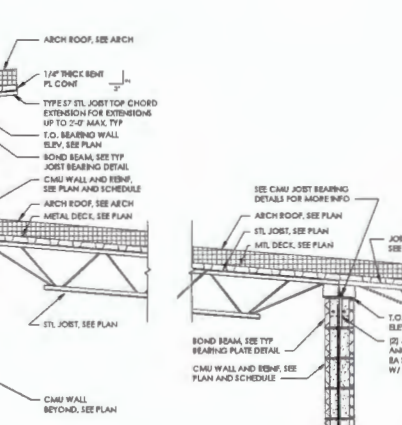
**5 FOUNDATION SECTION**  
3/4" = 1'-0"



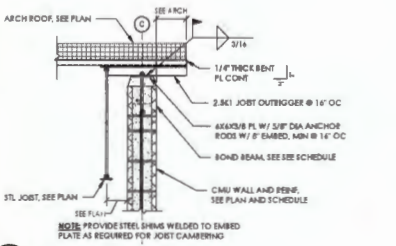
**6 FRAMING SECTION**  
3/4" = 1'-0"



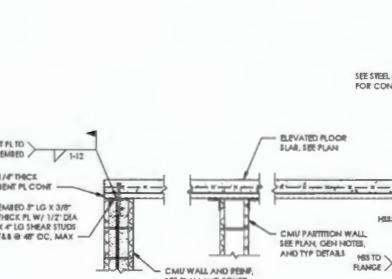
**7 FRAMING SECTION**  
3/4" = 1'-0"



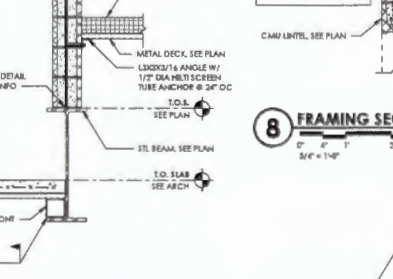
**8 FRAMING SECTION**  
3/4" = 1'-0"



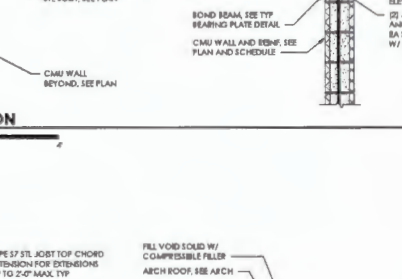
**9 FRAMING SECTION**  
3/4" = 1'-0"



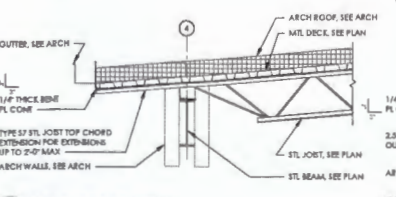
**10 FRAMING SECTION**  
3/4" = 1'-0"



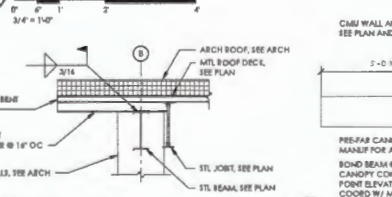
**11 FRAMING SECTION**  
3/4" = 1'-0"



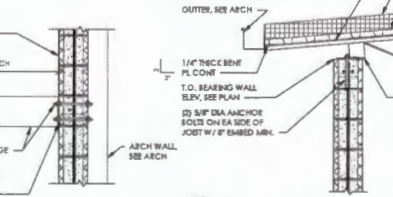
**12 FRAMING SECTION**  
3/4" = 1'-0"



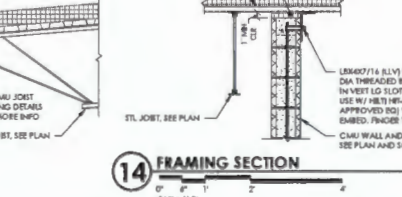
**13 FRAMING SECTION**  
3/4" = 1'-0"



**14 FRAMING SECTION**  
3/4" = 1'-0"



**15 FRAMING SECTION**  
3/4" = 1'-0"



**16 FRAMING SECTION**  
3/4" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**  
4100 US Highway 1, Suite 200  
St. Augustine, FL 32086  
Phone: 386-286-1111  
Fax: 386-286-1112  
www.passeroassociates.com

NO.	DATE	BY	DESCRIPTION

SECTIONS & DETAILS

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hastings STATE: Florida

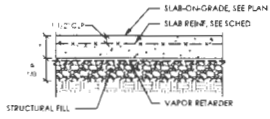
20213261.0012

S-301

NOVEMBER 15, 2024

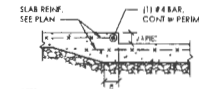
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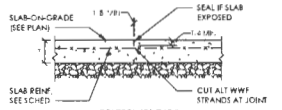
NOTES:  
1. SEE SLAB-ON-GRADE SCHEDULE FOR SLAB THICKNESS.  
2. PROVIDE CHAIRS TO SUPPORT SLAB REINFORCING AT SPECIFIED ELEVATION.

**1 SLAB-ON-GRADE DETAIL**  
N.T.S.



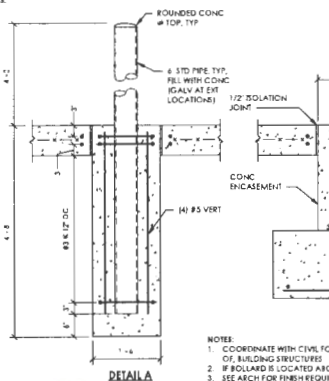
NOTES:  
1. SEE ARCH DRAWINGS FOR LOCATION AND DEPTH OF SLAB DEPRESSION.  
2. SEE TYPICAL SLAB-ON-GRADE DETAIL ON THIS SHEET FOR SLAB DETAILS NOT SHOWN.  
3. SEE SLAB-ON-GRADE SCHEDULE FOR SLAB THICKNESS.

**2 SLAB-ON-GRADE DEPRESSION DETAIL**  
N.T.S.



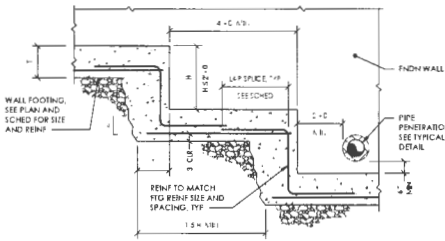
CONSTRUCTION JOINTS:  
1. SEE TYPICAL SLAB-ON-GRADE DETAIL FOR INFORMATION NOT SHOWN.  
2. IF FORMED JOINT IS USED, INSERT 1/2" PRECAST OR METAL STRIPS WHEN CONCRETE IS PLACED.  
3. AT TAMED JOINTS, SEAL IF SLAB IS EXPOSED.  
4. SPACE CONTROL JOINTS AS FOLLOWS:  
A. 16'-0" O.C.

**7 SOG CONTROL/CONSTRUCTION JOINT DETAIL**  
N.T.S.

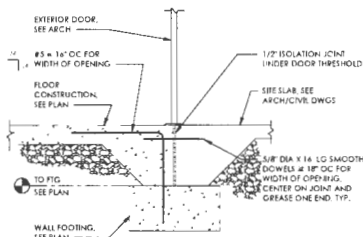


**10 BOLLARD DETAIL**  
N.T.S.

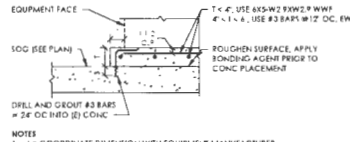
NOTES:  
1. COORDINATE WITH CIVIL FOR BOLLARDS NOT IMMEDIATE TO, OR IN THE INTERIOR OF, BUILDING STRUCTURES.  
2. IF BOLLARD IS LOCATED ABOVE AN ISOLATION COLUMN FOOTING, USE DETAIL B.  
3. SEE ARCH FOR FINISH REQUIREMENTS.  
4. PROVIDE BOLLARD SLEEVE AT EXTERIOR LOCATION B.



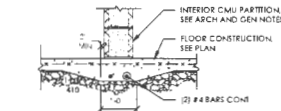
**3 TYPICAL WALL FOOTING STEP DETAIL**  
N.T.S.



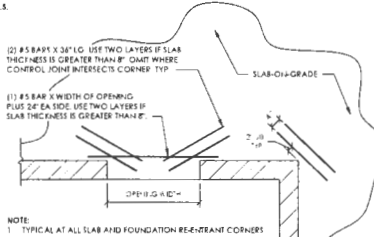
**8 TYPICAL SLAB AT EXTERIOR DOOR DETAIL**  
N.T.S.



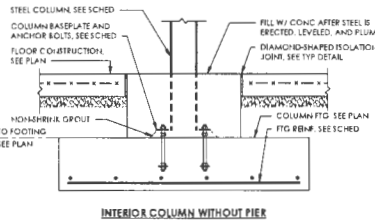
**4 EQUIPMENT PAD SLAB DETAIL**  
N.T.S.



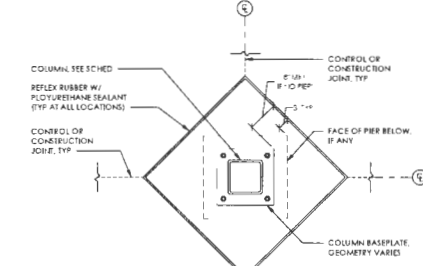
**5 SLAB AT CMU PARTITION WALL DETAIL**  
N.T.S.



**9 REINFRANT CORNER REINFORCEMENT DETAIL**  
N.T.S.



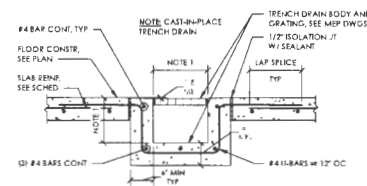
**11 INTERIOR COLUMN FOOTING DETAIL**  
N.T.S.



**INTERIOR COLUMN**

**PERIMETER COLUMN**

**6 COLUMN ISOLATION JOINT DETAIL**  
N.T.S.



**12 TRENCH DRAIN DETAILS**  
N.T.S.

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**

11111 UNIVERSITY BLVD., SUITE 200  
ST. AUGUSTINE, FL 32086  
PHONE: 321.286.1111  
FAX: 321.286.1112  
WWW.PASSERO-ASSOCIATES.COM

NO.	DATE	BY	DESCRIPTION

FOR FURTHER USE OF THESE DRAWINGS, THE LOCATION OF ANY REVISIONS MUST BE INDICATED BY A RED CIRCLE AND NUMBER IN THE REVISIONS LIST.

**TYPICAL CONCRETE DETAILS**

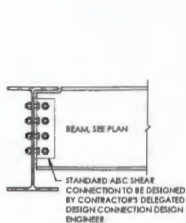
4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hastings  
COUNTY: SJC STATE: Florida

20213261.0012

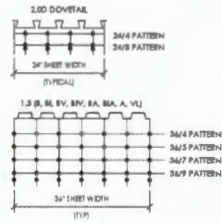
S-501

NOVEMBER 15, 2024

**BID SET**

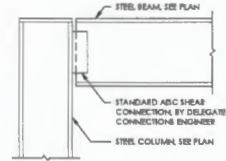


**1 BEAM TO GIRDER CONNECTION**  
N.E.L.

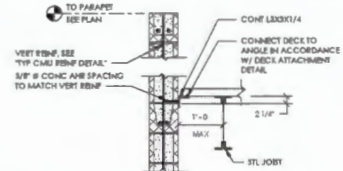


- NOTES:**
1. SEE THE ELEVATED FLOOR SCHEDULE AND/OR ROOF DECK SCHEDULE FOR APPLICABLE DECK TYPE AND PATTERN.
  2. DECK ENDS ARE TO BE BUTT JUNCTIONS. LAPPED DECK ENDS ARE PROHIBITED.
  3. WELDING WASHERS ARE NOT PERMITTED FOR DECKS THICKER THAN 24 GAUGE.
  4. MECHANICAL FASTENERS ARE ACCEPTABLE ALTERNATE AT CONTRACTOR'S OPTION.

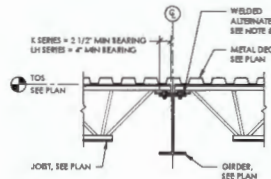
**2 METAL DECK FASTENING LAYOUT**  
N.E.L.



**3 BEAM TO COLUMN CONNECTION**  
N.E.L.

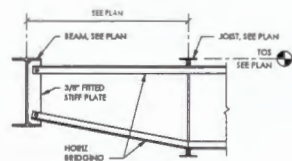


**4 ROOF DECK EDGE SUPPORT**  
N.E.L.

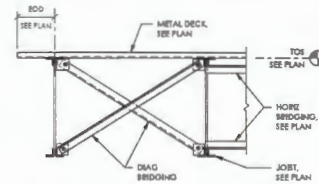


- NOTES:**
1. OFFSET JOISTS IF BEAM FLANGE WIDTH WILL NOT PERMIT END TO END BEARING ARRANGEMENT SHOWN.
  2. 1 1/2" PILET WELD EACH SIDE OF SEAT FOR E-SERIES. 2" OF 1/2" PILET WELD EACH SIDE OF SEAT FOR LH-SERIES.
  - (1) 1/2" DIA. HIGH STRENGTH BOLT EACH SIDE OF SEAT FOR E-SERIES. (2) 3/4" DIA. HIGH STRENGTH BOLT EACH SIDE OF SEAT FOR LH-SERIES.
  4. SHEAR COLLECTOR NOT SHOWN.

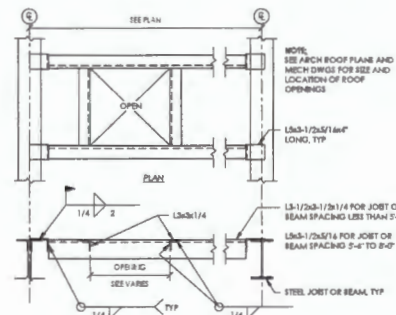
**5 JOIST BEARING ON GIRDER**  
N.E.L.



**6 JOIST BRIDGING LINE TERMINATION AT BEAM**  
N.E.L.



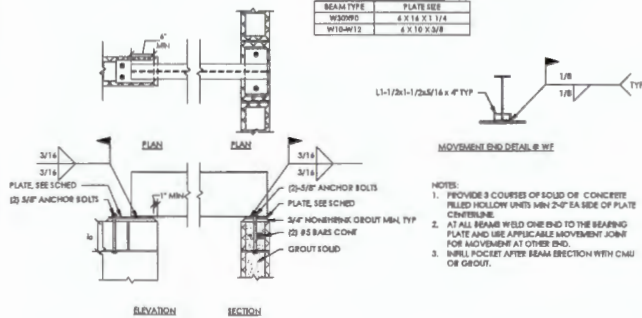
**7 JOIST BRIDGING LINE TERMINATION AT JOIST**  
N.E.L.



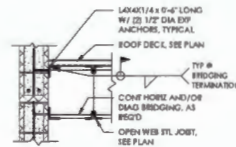
**8 FRAMING FOR ROOF OPENING**  
N.E.L.

**BEARING PLATE SCHEDULE**

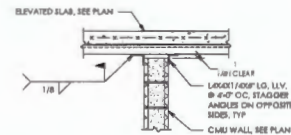
BEAM TYPE	PLATE SIZE
W8x15	6 x 18 x 1/4
W12x13	6 x 18 x 3/8



**9 TYPICAL BEARING PLATE DETAIL AND SCHEDULE**  
N.E.L.



**10 JOIST BRIDGING LINE TERMINATION AT CMU WALL**  
N.E.L.



**11 CMU BRACING PARTITION DETAIL**  
N.E.L.

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**

11505 W. UNIVERSITY BLVD.  
SUITE 200  
DADE CITY, FL 34585  
TEL: 352-491-1100  
FAX: 352-491-1101  
WWW.PASSEROASSOCIATES.COM

NO.	DATE	BY	DESCRIPTION

**TYPICAL STEEL DETAILS**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

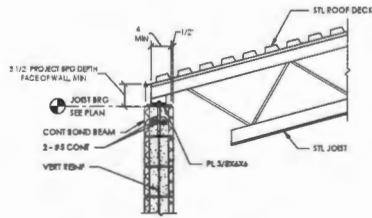
COUNTY: SJC STATE: FLORIDA

20213261.0012

S-502

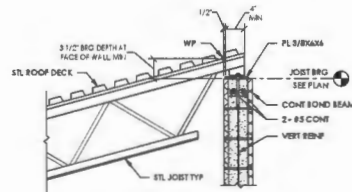
**BID SET**

NOVEMBER 15, 2024



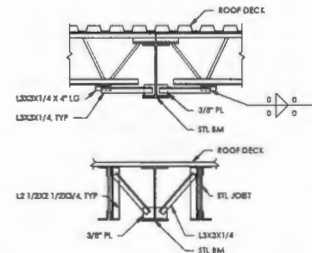
NOTE: 1. 1/8\"/>

**1** LOW END SLOPED STEEL JOIST BEARING ON CMU DETAIL  
M.L.A.

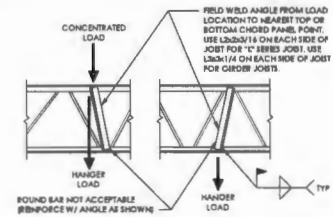


NOTE: 1. 1/8\"/>

**2** HIGH END SLOPED STEEL JOIST BEARING ON CMU DETAIL  
M.L.A.



**3** BEAM BOT FLANGE BRACE  
M.L.A.



NOTE:  
1. MODIFICATION IS TYP FOR ALL JOISTS SUPPORTING LOAD FROM TOP OR BOTTOM CHORD BETWEEN PANEL POINTS. VERIFY LOCATION AND NUMBER OF LOADS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.  
2. JOIST MANUFACTURER TO SHOW REINFORCING AT ALL CONCENTRATED LOADS WHOSE EXACT LOCATION IS SHOWN ON DRAWINGS.

**4** TYPICAL JOIST REINFORCING DETAIL  
M.L.A.

CLIENT  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32085

**Passero Associates**

Professional Seal: [Blank] Date: [Blank]  
Professional No. [Blank] State: [Blank]  
Project Manager: [Blank] Date: [Blank]  
Title: [Blank] Company: [Blank]

NO.	DATE	BY	DESCRIPTION

THESE DETAILS OR THESE DETAILS IN GENERAL ARE NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF PASSERO ASSOCIATES, INC. ANY REVISIONS TO THESE DETAILS SHALL BE INDICATED BY A REVISION TABLE.

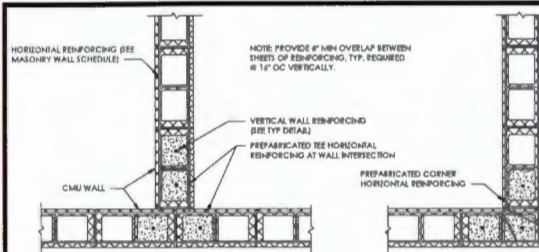
TYPICAL STEEL  
DETAILS  
  
4630 MELANIE  
STREET  
  
SJC - FLAGLER ESTATES FIRE  
STATION  
TOWNSHIP: Hawthorn  
COUNTY: SJC STATE: Florida

20213261.0012

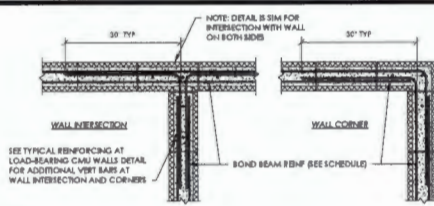
S-503

**BID SET**

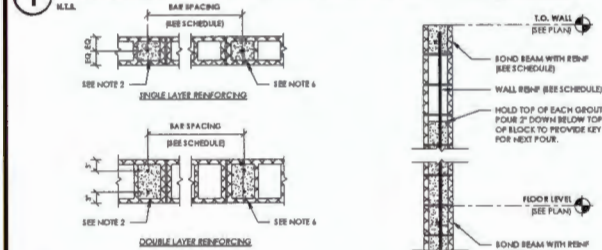
NOVEMBER 15, 2024



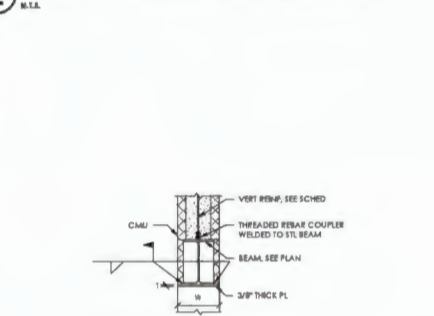
**1 TYPICAL CMU HORIZONTAL REINFORCING DETAIL**  
N.L.A.



**2 TYPICAL DETAIL AT BOND BEAM INTERSECTIONS**  
N.L.A.



**3 TYPICAL CMU VERTICAL REINFORCING**  
N.L.A.



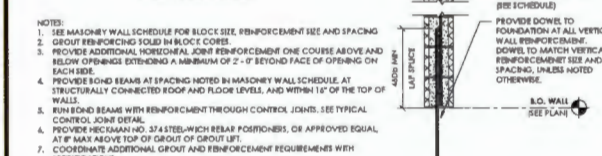
**4 STEEL LINTEL**  
N.L.A.

**JAMB REINFORCING SCHEDULE**

EXTERIOR WALLS	
OPENING SIZE	REQUIRED REINFORCING
0'-0" TO 2'-4"	(2) #5 JAMB 8" BRG (2) #5 FULL HEIGHT TYP WALL REIN
2'-4" TO 7'-0"	(2) #5 JAMB 8" BRG 2 CELLS W/ (2) #5 FULL HEIGHT TYP WALL REIN
7'-0" TO 10'-0"	(2) #5 JAMB 8" BRG 3 CELLS W/ (2) #5 FULL HEIGHT TYP WALL REIN
INTERIOR WALLS	
OPENING SIZE	REQUIRED REINFORCING
ALL	(1) #7 FULL HEIGHT 8" BRG TYP WALL REIN

**NOTES:**  
 1. BARS @ JAMB LOCATIONS SHALL EXTEND THROUGH NOTCHED END OF PRECAST CONCRETE LINTEL.  
 2. ALL BARS REQUIRE MATCHING DOWELS WITH STANDARD HOOK INTO FOOTINGS.  
 3. IF BAR SIZE ABOVE ARE SMALLER THAN MASONRY WALL REINFORCING, MATCH BAR SIZE TO WALL REINFORCING. SEE MASONRY WALL SCHEDULE.

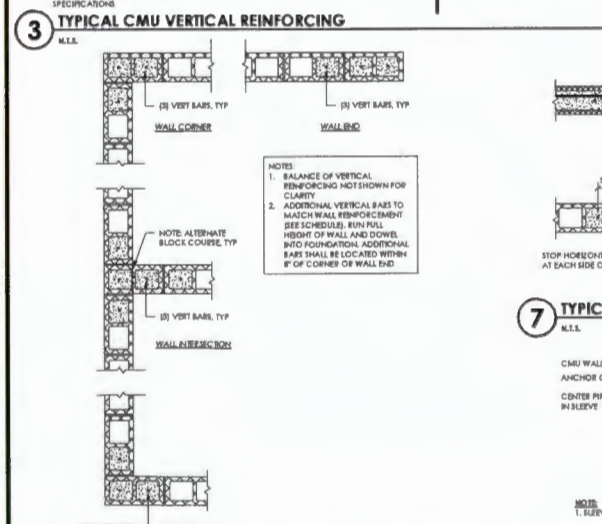
**5 CMU BEARING WALL JAMB REIN SCHED**  
N.L.A.



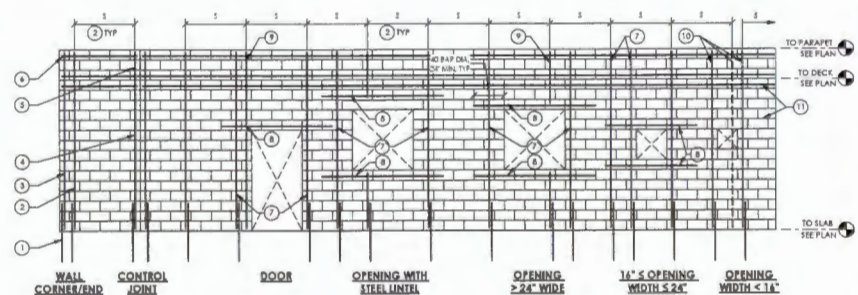
**6 TYPICAL REINFORCING AT LOAD-BEARING CMU WALLS**  
N.L.A.



**7 TYPICAL REINFORCING AT CONTROL JOINT**  
N.L.A.



**8 CMU PIPE SLEEVE BELOW GRADE**  
N.L.A.



**9 MASONRY WALL REINFORCEMENT LAYOUT**  
N.L.A.

**NOTES**

MARK	DESCRIPTION	MARK	DESCRIPTION
1	DOWELS TO MATCH SIZE AND SPACING OF WALL REINFORCEMENT.	7	PROVIDE REINFORCEMENT WITHIN 16 INCHES OF EACH SIDE OF OPENING.
2	TYPICAL REINFORCEMENT. SEE SECTIONS FOR SEE AND SPACING.	8	PROVIDE REINFORCEMENT AT TOP AND BOTTOM OF OPENINGS.
3	PROVIDE REINFORCEMENT AT WALL CORNER AND WITHIN 6\"/>		

**PASSERO**  
engineering architecture

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32086

**Passero Associates**  
PROJECT NUMBER: 20213261.0012  
PROJECT: ST. JOHN'S COUNTY STATION  
DATE: 11/15/24  
BY: [Signature]

**TYPICAL MASONRY DETAILS**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Flagler  
COUNTY: SJC STATE: FLORIDA

20213261.0012  
S-504  
NOVEMBER 15, 2024

**BID SET**

OUTSIDE AIR CALCULATION table with columns for ROOM, NET OCCUPANCY, VENTILATION RATE, etc.

NOTES  
1. CALCULATIONS ARE BASED ON ESTIMATED MAX. OCCUPANCY RATES PER ARCHITECTURAL PLANS AND 2022 FMC TABLE 403.3.1.1.

DESIGN CRITERIA table with columns for LOCATION, SUMMER DESIGN DB, WINTER DESIGN DB, etc.

HVLS FAN ADD ALTERNATE  
PROVIDE ALTERNATE PRICES TO INCLUDE ADDITION OF NEW HVLS FAN IN THE APPRATUS BAY.

CARBON MONOXIDE CONTROL  
CARBON MONOXIDE (CO) DETECTION AND CONTROL SHALL BE PROVIDED FOR APPARATUS BAY AREA.

SUBMITTALS AND SHOP DRAWINGS REQUIREMENTS  
1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SHOP DRAWINGS FOR APPROVAL AND ASSEMBLY.

- 1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SHOP DRAWINGS FOR APPROVAL AND ASSEMBLY.
- 2. COORDINATE WITH GENERAL PROJECT TERMS AND CONDITIONS FOR SUBMITTING PROCEDURES AND PROCESSES.

KITCHEN EQUIPMENT MECHANICAL NOTES  
1. COMBUSTION KITCHEN EXHAUST SYSTEM AND TYPE I EXHAUST HOOD SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SECTION 909.0 THROUGH 909.13 OF THE FMC 2022 AND THE NATIONAL SANITATION FOUNDATION STANDARDS.

- 1. CLEAN OUTLINE OPENINGS SHALL BE PROVIDED AT EACH CHANGE IN DIRECTION OF THE GREASE DUCT SYSTEM AND AT ANY OTHER POINT OF THE SYSTEM NOT ACCESSIBLE FROM THE DUCT INLET OR DISCHARGE.
- 2. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL, PLUMBING AND VENDOR DOCUMENTS AND SUBMITTALS PRIOR TO PURCHASING MECHANICAL EQUIPMENT.

MECHANICAL NOTES  
PART 1 - GENERAL  
A. EQUIPMENT, MATERIALS, AND FINISHES  
1. FURNISH ALL MATERIALS AND FINISHES IN ACCORDANCE WITH THE REQUIREMENTS OF ONE OR MORE OF THE FOLLOWING:

- 1. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE START-UP. REPLACE PRIOR TO FINAL ACCEPTANCE BY THE ENGINEER.
- 2. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL FLEX TAKEOFFS.
- 3. PROVIDE CLEAN OUTLINE OPENINGS AT EACH OUTLET, GRILLE, AND REGISTER EQUAL TO THE SERVICE FLEXION LEAKAGE.

COORDINATION NOTE  
MECHANICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS AND ACCESSORIES WITH ELECTRICAL CONTRACTOR PRIOR TO PURCHASING AND INSTALLATION.

MECHANICAL SHEET INDEX table with columns for SHEET #, SHEET NAME, and MECHANICAL NOTES.



MECHANICAL ABBREVIATION LEGEND table with columns for ABB, ABOVE FINISH FLOOR, MAX, MAXIMUM, etc.

CLIENT  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

PROMUS INC. PROJECT MANAGER: BRANDON SHARP

MECHANICAL NOTES  
4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HASTINGS  
COUNTY: SJC STATE: FLORIDA

2021326.0012  
M-001

NOVEMBER 15, 2024

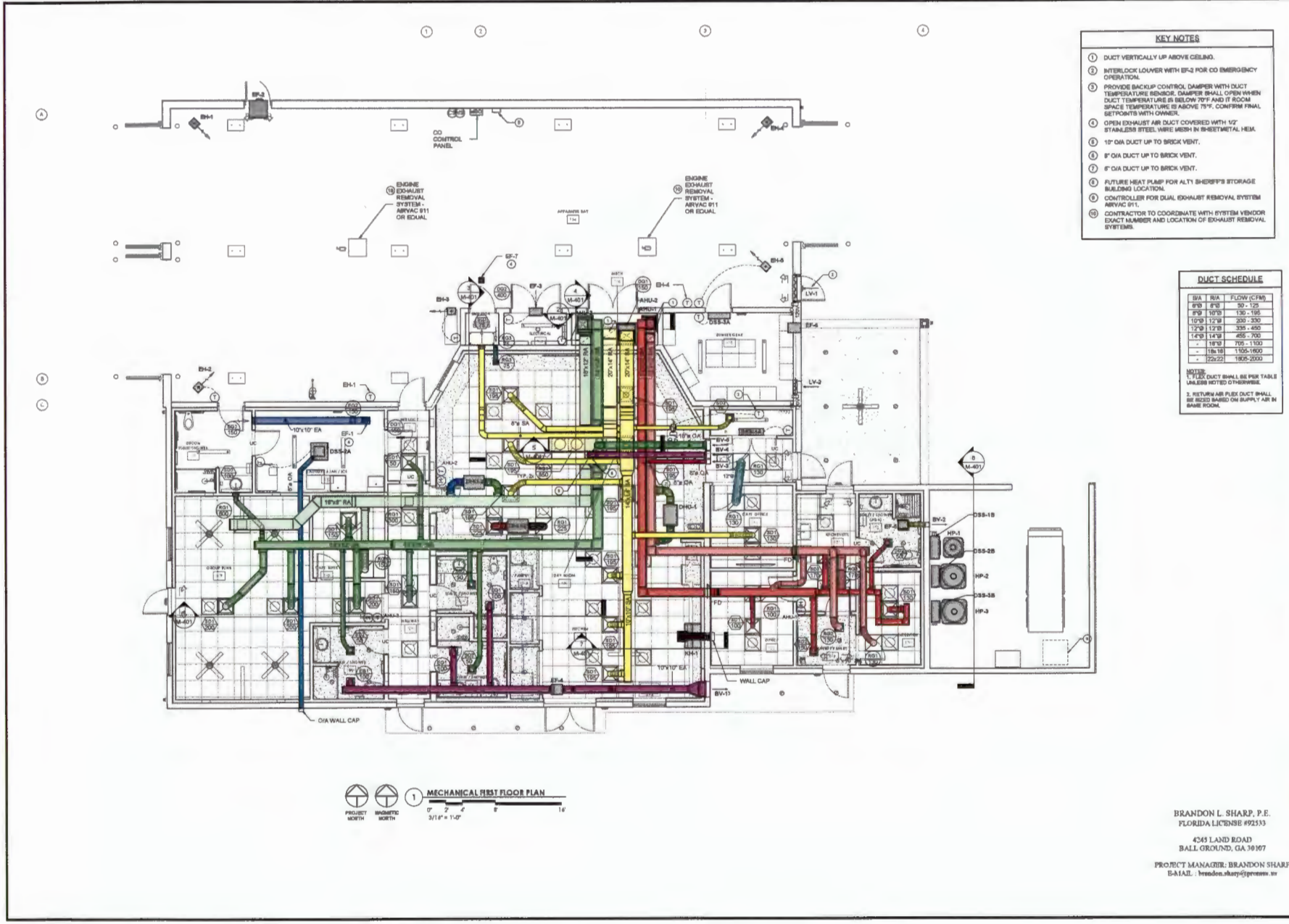
**KEY NOTE**

- ① DUCT VERTICALLY UP ABOVE CEILING.
- ② INTERLOCK LOUVER WITH EF-2 FOR CO EMERGENCY OPERATIONAL.
- ③ PROVIDE BACKUP CONTROL DAMPER WITH DUCT TEMPERATURE SENSOR. DAMPER SHALL OPEN WHEN DUCT TEMPERATURE IS BELOW 70°F AND IT ROOM SPACE TEMPERATURE IS ABOVE 75°F. CONFIRM FINAL SETPOINTS WITH OWNER.
- ④ OPEN EXHAUST AIR DUCT COVERED WITH 1/2" STAINLESS STEEL WIRE MESH IN BRICK/VENTIL.
- ⑤ 10" OIA DUCT UP TO BRICK VENT.
- ⑥ 8" OIA DUCT UP TO BRICK VENT.
- ⑦ 6" OIA DUCT UP TO BRICK VENT.
- ⑧ FUTURE HEAT PUMP FOR ALTY SHERIFF'S STORAGE BUILDING LOCATION.
- ⑨ CONTROLLER FOR DUAL EXHAUST REMOVAL SYSTEM AIRVAC #11.
- ⑩ CONTRACTOR TO COORDINATE WITH SYSTEM VENDOR EXACT NUMBER AND LOCATION OF EXHAUST REMOVAL SYSTEMS.

**DUCT SCHEDULE**

RA	RIA	FLOW (CFM)
8"Ø	14"Ø	50 - 125
8"Ø	10"Ø	130 - 165
10"Ø	12"Ø	200 - 250
12"Ø	12"Ø	300 - 400
14"Ø	14"Ø	450 - 700
-	18"Ø	700 - 1100
-	18"Ø	1100-1600
-	22"Ø	1800-2000

- NOTE:**  
1. FLEX DUCT SHALL BE FIBER TUBES UNLESS NOTED OTHERWISE.  
2. RETURN AIR FLEX DUCT SHALL BE SIZED BASED ON SUPPLY AIR IN SAME ROOM.



**MECHANICAL FIRST FLOOR PLAN**  
PROJECT NORTH  
GRAPHIC NORTH  
3/16" = 1'-0"

CLIENT  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

ONE LIND ROAD  
BALL BEACH, FL 32117  
PROJECT NUMBER: 20213261.0012  
PROJECT & OWNER: ST. JOHN'S FIRE & RESCUE  
DATE: 11/15/2024

NO.	DATE	BY	DESCRIPTION
1	11/15/2024	BRJ	REVISED

**MECHANICAL FLOOR PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWNSHIP: HASTINGS  
COUNTY: SJC STATE: FLORIDA

20213261.0012

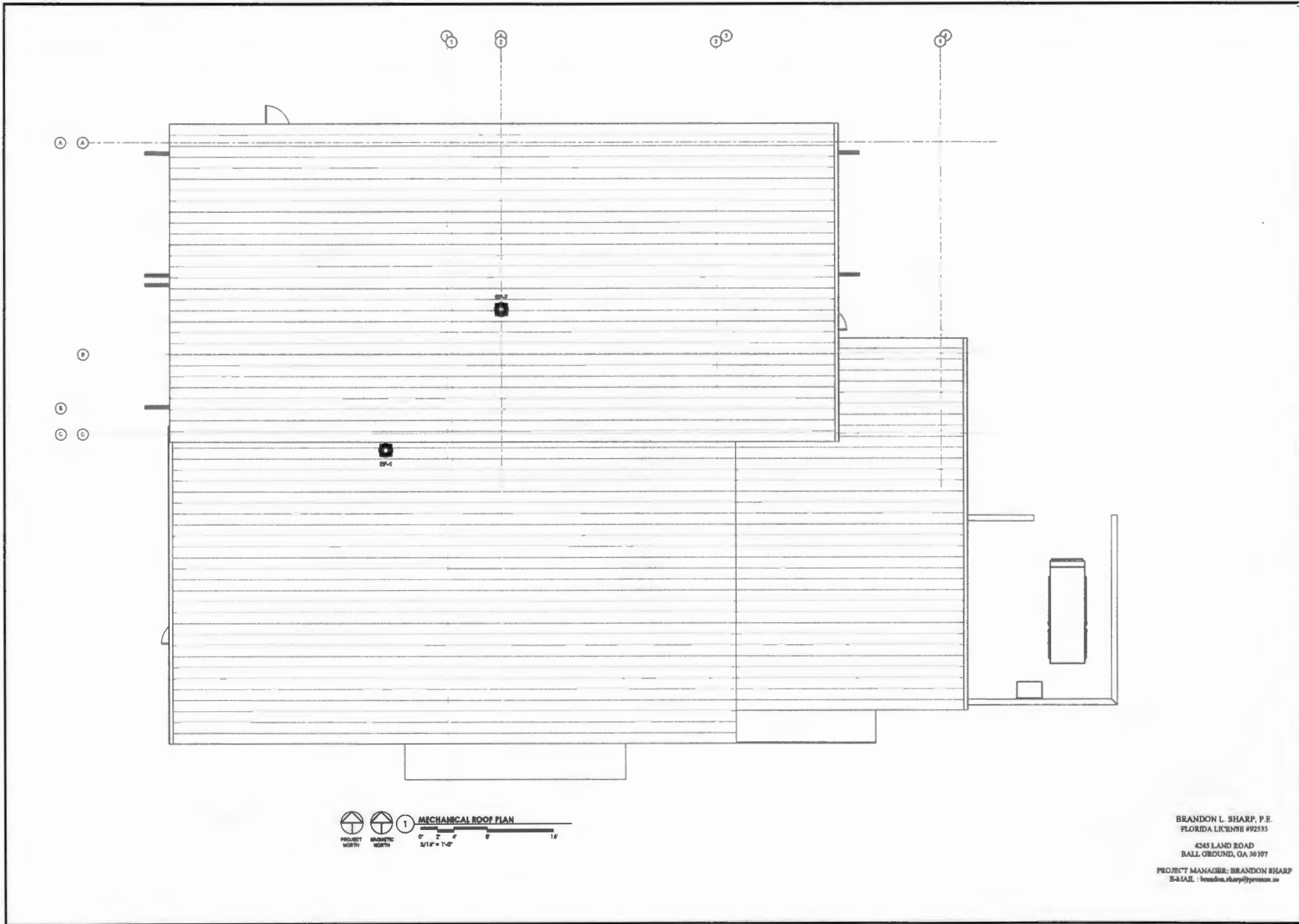
M-201

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92333

4345 LAND ROAD  
BALL GROUND, GA 30107

PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@promusinc.com



**PASSERO**  
engineering architecture

**PROMUS**

**ML+H**

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

NO. DATE BY DESCRIPTION  
1 11/15/2024 BSJ

NO.	DATE	BY	DESCRIPTION
1	11/15/2024	BSJ	

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**MECHANICAL ROOF PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

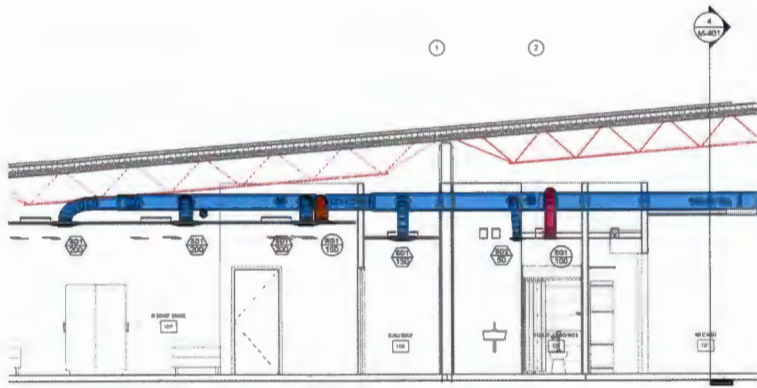
COUNTY: SJC STATE: FLORIDA

PROJECT NO: 20213261.0012

DATE: M-202

NOVEMBER 15, 2024

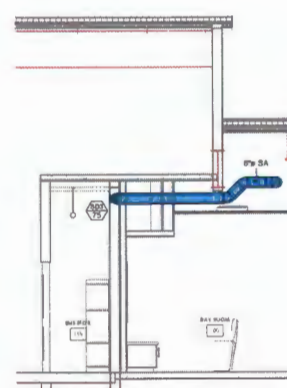
BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92333  
4245 LAND ROAD  
BALL GROUND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@promusinc.com



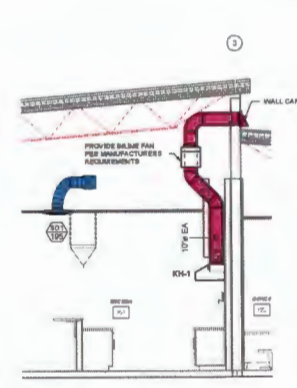
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1/4" = 1'-0"



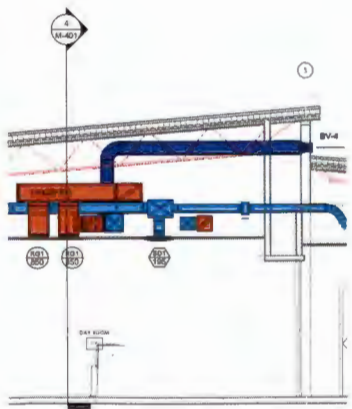
**2 MECHANICAL SECTION 2**  
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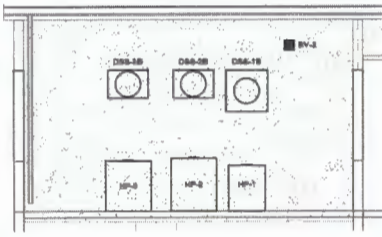
**3 MECHANICAL SECTION 3**  
1/4" = 1'-0"



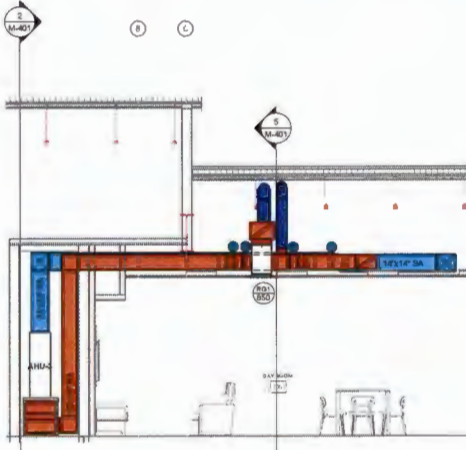
**7 MECHANICAL SECTION 4**  
1/4" = 1'-0"



**8 MECHANICAL SECTION 5**  
1/4" = 1'-0"



**6 MECHANICAL SECTION 6**  
1/4" = 1'-0"



**4 MECHANICAL SECTION 7**  
1/4" = 1'-0"

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

DATE: 11/15/2024	BY: [Signature]	DESCRIPTION: [Text]

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**MECHANICAL SECTIONS**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: HARTSDOS  
COUNTY: SJC STATE: FLORIDA

PROJECT NO: 20213261.0012

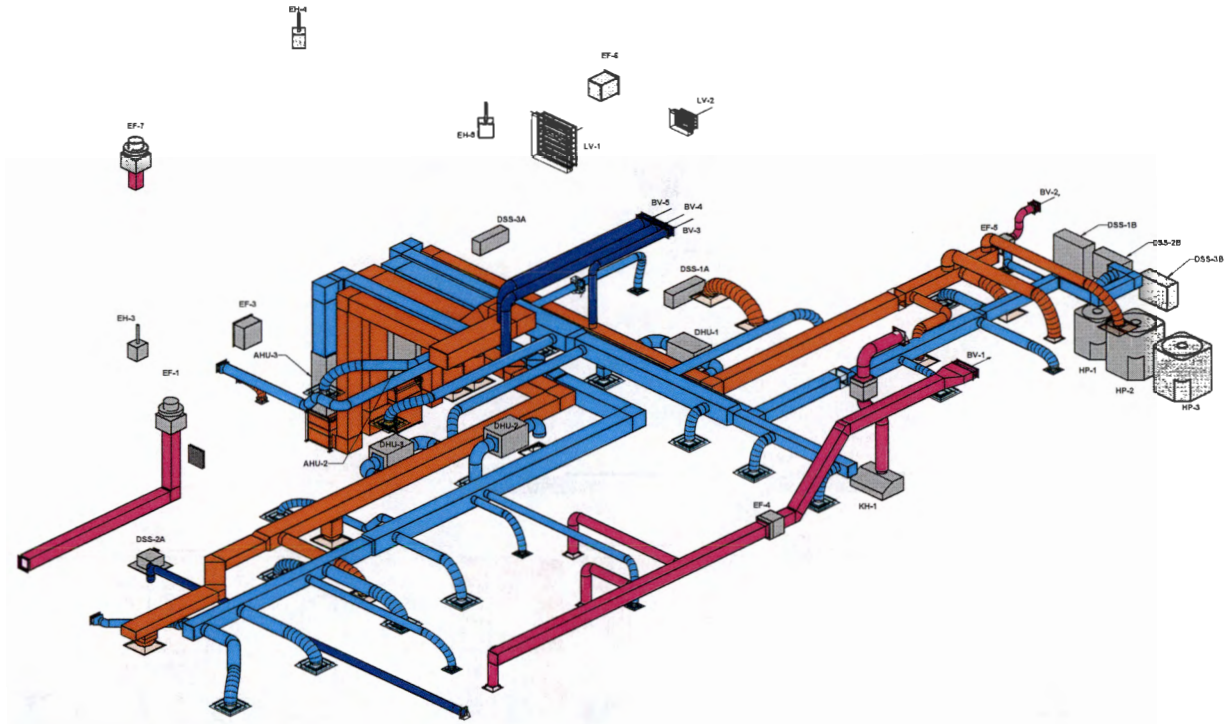
DATE: M-401

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533  
4245 LAND ROAD  
BALL GEORND, GA 30107

PROJECT MANAGER: BRANDON SHARP  
E-MAIL: - brandon.sharp@promus.ie





1 MECHANICAL 3D VIEW  
0' 2' 4' 6' 8' 10'

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

1200 N. W. 10th Street  
St. Augustine, FL 32084  
904.829.1111

DATE: 11/15/2024  
BY: [Signature]

NO.	DATE	BY	DESCRIPTION
1	11/15/2024		Bel Set

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**MECHANICAL 3D VIEW**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: HASTINGS

COUNTY: SJC STATE: FLORIDA

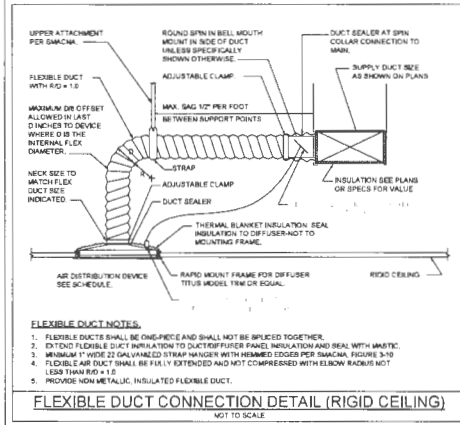
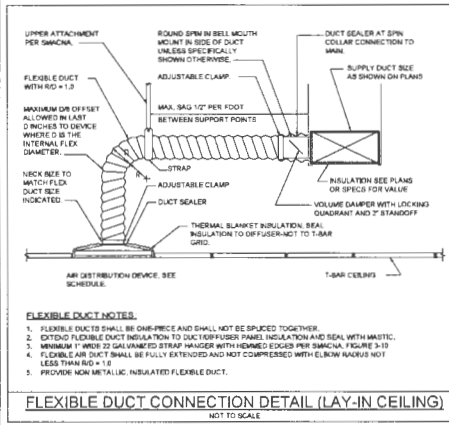
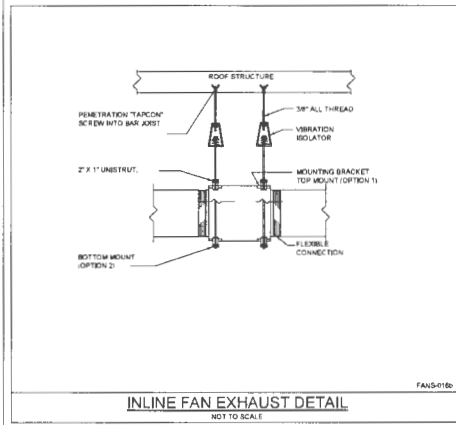
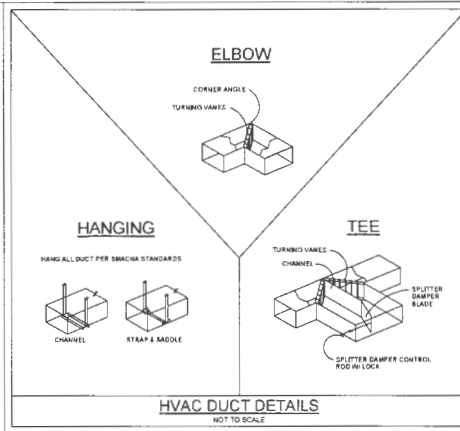
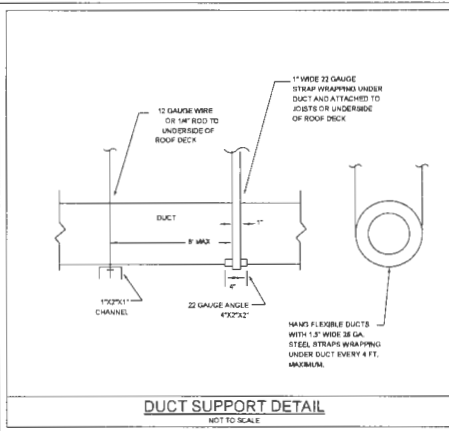
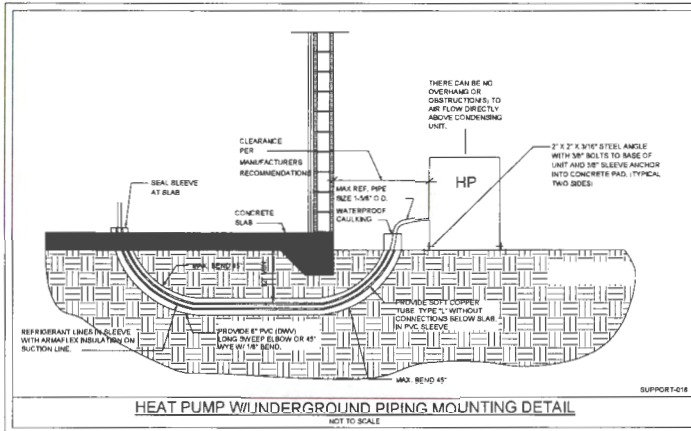
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M-402

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533  
4241 LIND ROAD  
BALL GROUNDS, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
EASL@brandonsharp@promusinc.com





CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

11/15/2024

NO. DATE BY DESCRIPTION

1 11/15/2024 BLS

**MECHANICAL DETAILS**

4630 MEIANI E STREET

SJC - FLAGLER ESTATES FIRE STATION

COUNTY: SJC STATE: FLORIDA

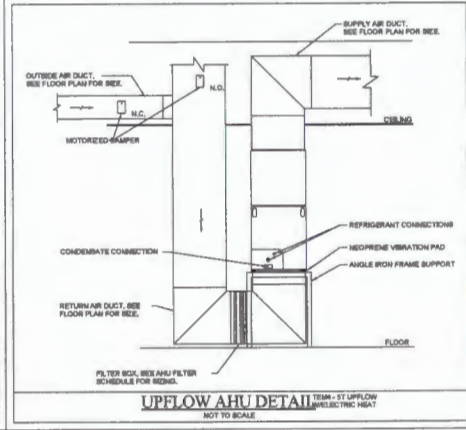
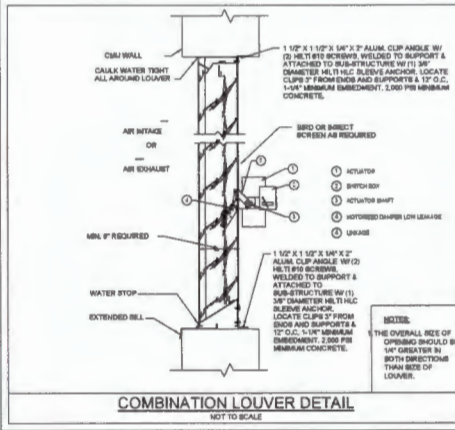
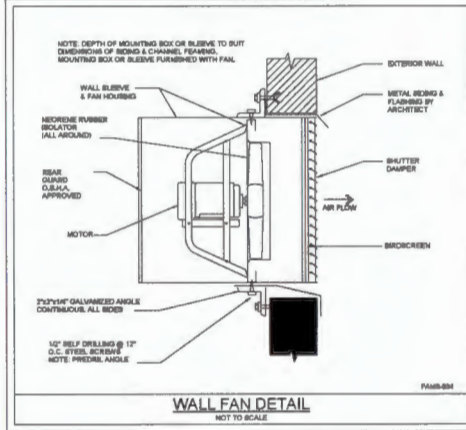
20213261.0012

M-701

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #025131  
4245 LAND ROAD  
BALL GROUND, GA 30107

PROJECT MANAGER: BRANDON SHARP  
EMAIL: brandon.sharp@promus.us



CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
404 LAND ROAD  
BALL GROUND, GA 30107

NO.	DATE	BY	DESCRIPTION
1	11/15/2024	BRJ	REVISED

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**MECHANICAL DETAILS**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION  
TOWNSHIP: HASTINGS

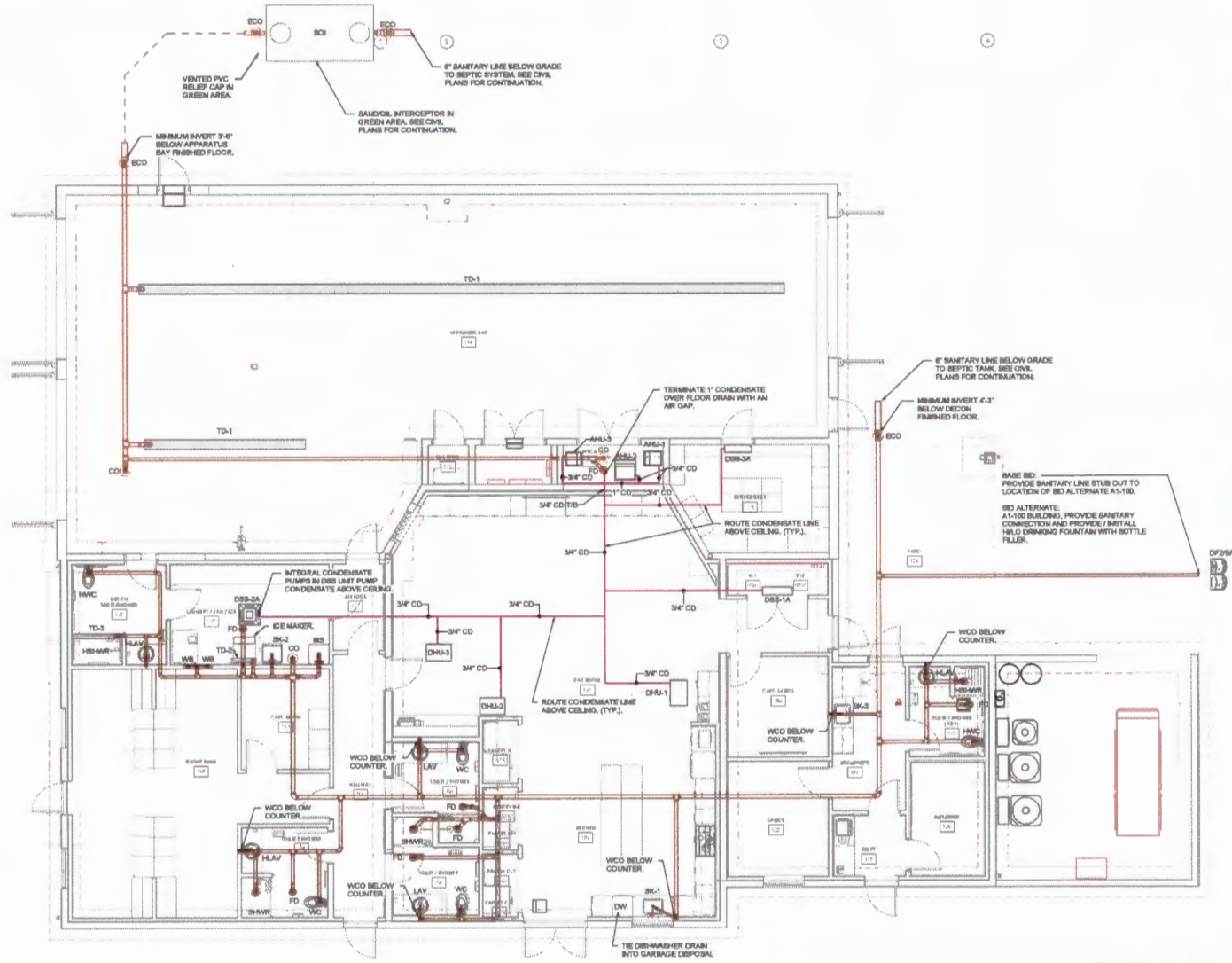
COUNTY: SJC STATE: FLORIDA  
PROJECT NO:  
**20213261.0012**

DATE:  
**M-702**

DATE:  
**NOVEMBER 15, 2024**

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92333  
4245 LAND ROAD  
BALL GROUND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@promusinc.com





1 SANITARY FIRST FLOOR PLAN  
0' 2' 4' 6' 8' 10'  
3/16" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

DATE: 11/15/24  
PROJECT: 20213261.0012  
PROJECT MANAGER: BRANDON SHARP  
PROJECT: 4630 MELANIE STREET

NO.	DATE	BY	DESCRIPTION
1	11/15/24	BR	Bid Set

**SANITARY FLOOR PLAN**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: Hastings  
COUNTY: SJC STATE: Florida

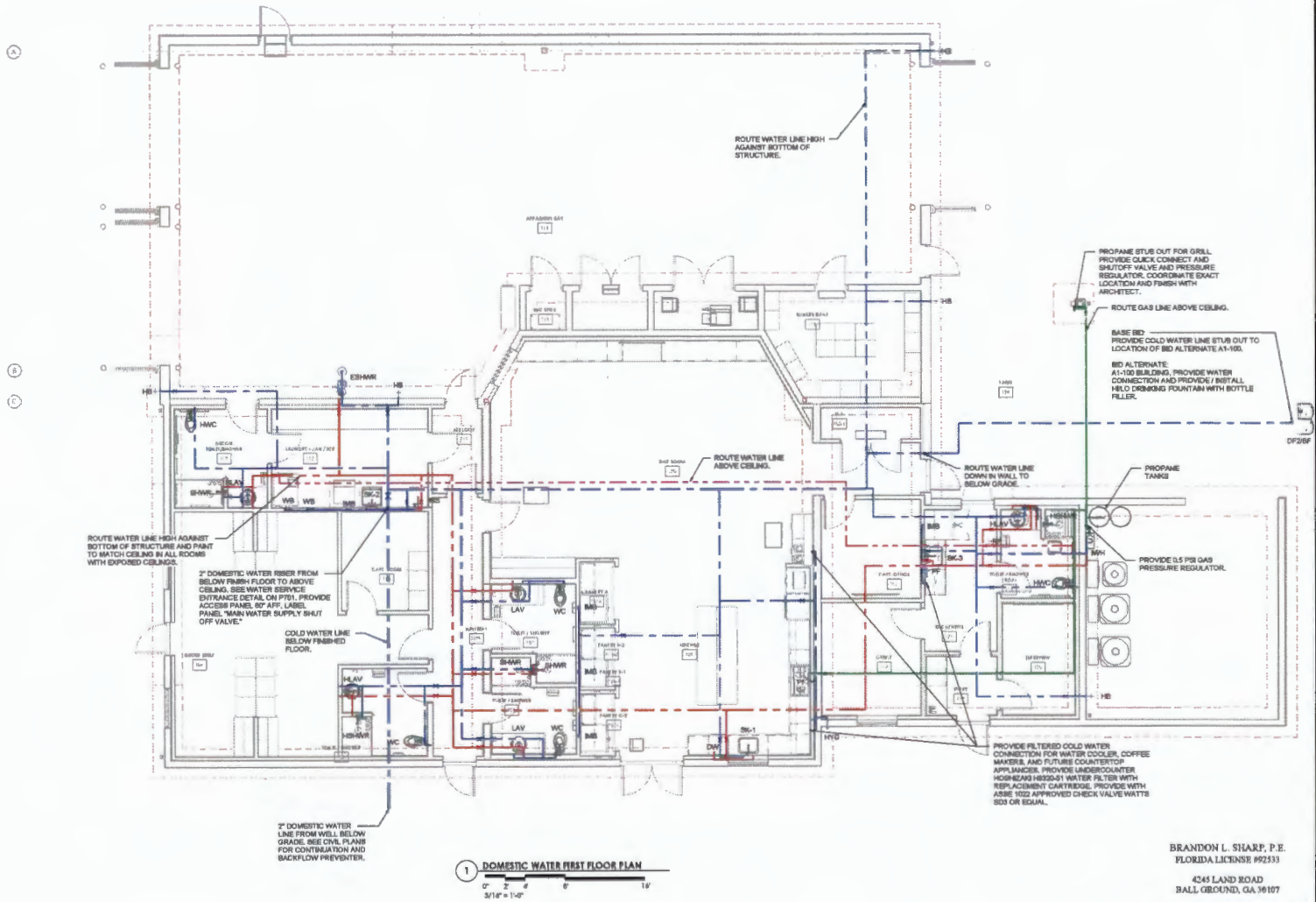
20213261.0012

P-201

NOVEMBER 15, 2024

**BID SET**

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533  
4245 LAND ROAD  
BALL BEOUND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
EMAIL: bsharp@promus.com



CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

1317524 BY Bid Set

NO.	DATE	BY	DESCRIPTION
1	1317524	BY	Bid Set

DATE PLOTTED: 11/15/2024 10:00 AM  
PLOTTER: HP DesignJet T1100e

**DOMESTIC WATER FLOOR PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: Hastings

COUNTY: SJC STATE: Florida

20213261.0012

P-301

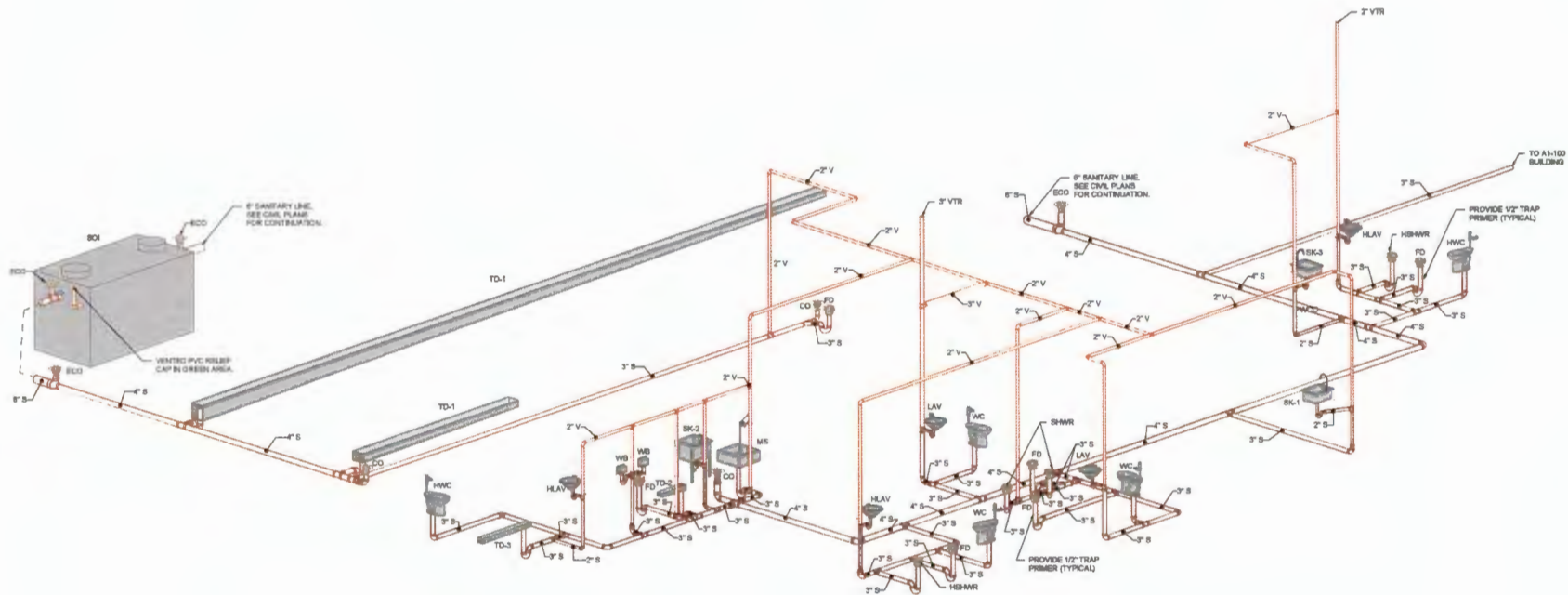
NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533

4245 LAND ROAD  
BALL GROUND, GA 30107

PROJECT MANAGER: BRANDON SHARP  
S-A-I-A-E: brandon.sharp@promus.us

**BID SET**



**1 SANITARY ISOMETRIC**  
SCALE:

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

1117524 Bid Set

NO.	DATE	BY	DESCRIPTION
	11/15/24		Bid Set

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**SANITARY ISOMETRIC**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: HAWTHORNE

COUNTY: SJC STATE: FLORIDA

20213261.0012

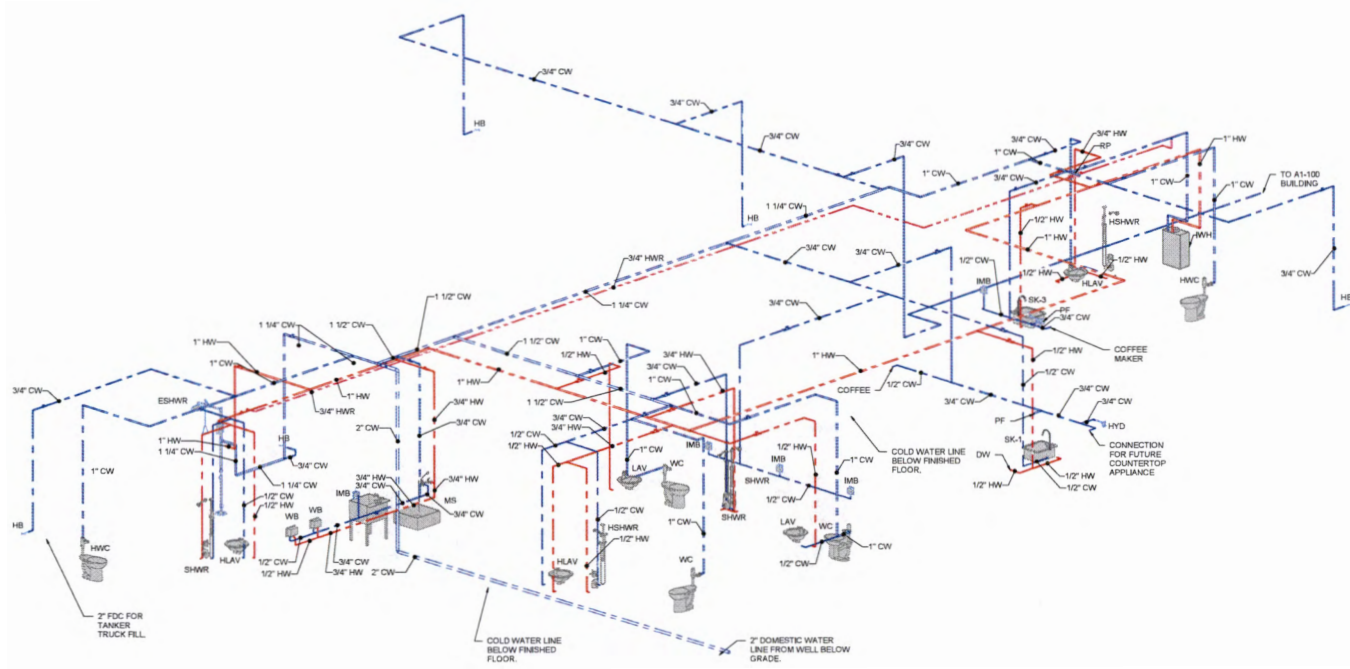
P-501

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92333  
4245 LAND ROAD  
BALL BECKOND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
E&LAB: brandon.sharp@passero.com

**BID SET**

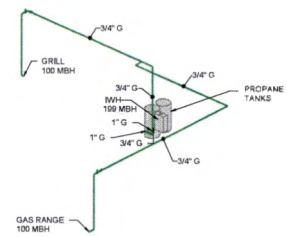




2" DOMESTIC WATER LINE FROM WELL BELOW GRADE

2" FDC FOR TANKER TRUCK FILL

**1 WATER ISOMETRIC**  
SCALE



GAS REGULATOR SIZE	
1	0.5 PSI REGULATOR TOTAL RUM = 12 TOTAL BTU = 366,000 BTU/H
NEW 0.5 PSI PRESSURE REGULATOR SIZING TABLE FLORIDA FUEL AND GAS CODE 2023 CHAPTER 4 TABLE 402.4(30)	

**2 GAS ISOMETRIC**  
SCALE

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

1211 W. STATE ST. SUITE 100  
ST. AUGUSTINE, FL 32084  
TEL: 904.829.1111  
WWW.PROMUSINC.COM

NO.	DATE	BY	DESCRIPTION
1	1/1/24	BR	Rev Set

**WATER ISOMETRIC AND GAS ISOMETRIC**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hastings  
COUNTY: SJC STATE: Florida

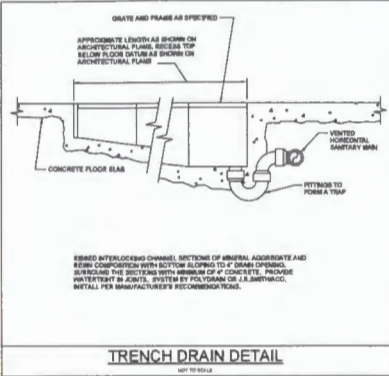
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P-502

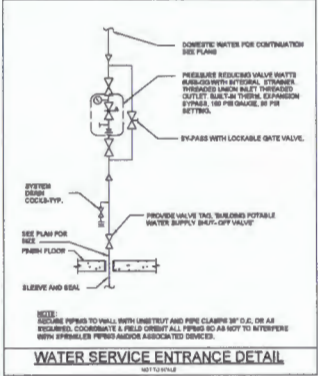
NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533  
4245 LAND ROAD  
BALL GROUND, FL 32017  
PROJECT MANAGER BRANDON SHARP  
E-MAIL brandon.sharp@promus.us

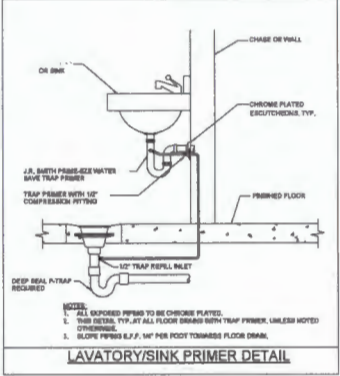
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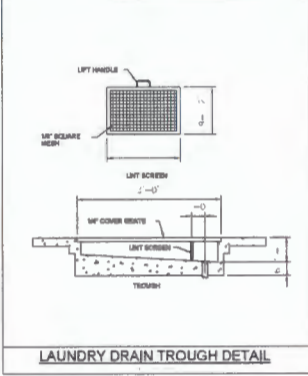
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NOT TO SCALE



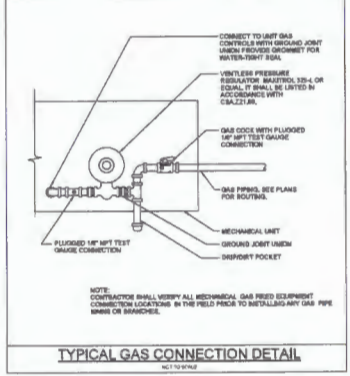
**WATER SERVICE ENTRANCE DETAIL**  
NOT TO SCALE



**LAVATORY/SINK PRIMER DETAIL**  
NOT TO SCALE



**LAUNDRY DRAIN TROUGH DETAIL**  
NOT TO SCALE



**TYPICAL GAS CONNECTION DETAIL**  
NOT TO SCALE

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

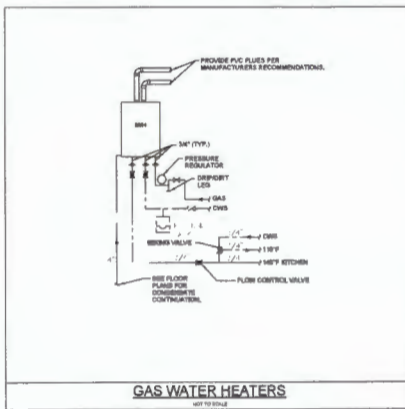
**PROMUS INC.**

ONE LEE ROAD, SUITE 100, ST. AUGUSTINE, FL 32084  
PROJECT ADDRESS: PROJECT # 2023-0001  
DATE: 11/15/24

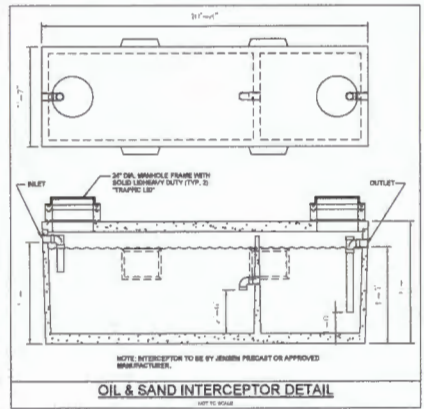
NO.	DATE	BY	DESCRIPTION
1	11/15/24	Bel Set	

**PLUMBING DETAILS**

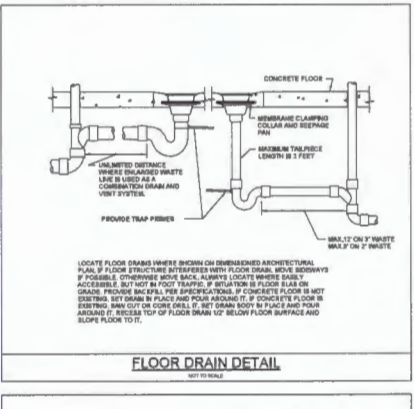
4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hawthorn STATE: Florida  
20231261.0012  
P-701  
NOVEMBER 15, 2024



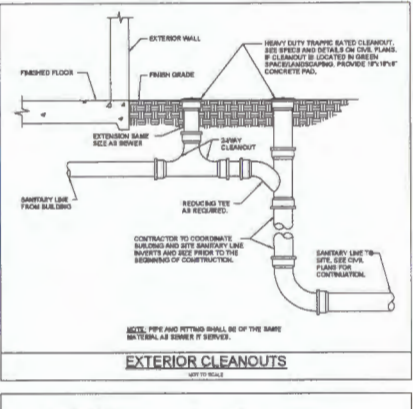
**GAS WATER HEATERS**  
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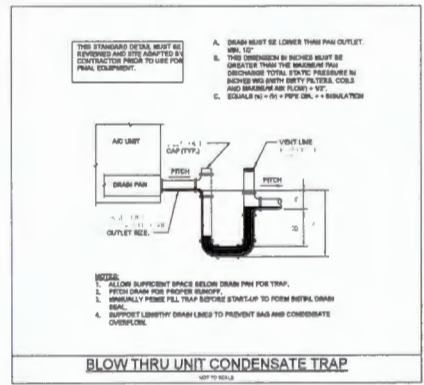
**OIL & SAND INTERCEPTOR DETAIL**  
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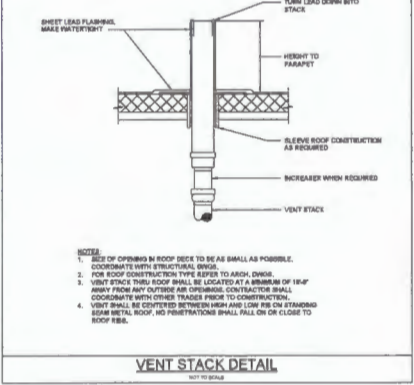
**FLOOR DRAIN DETAIL**  
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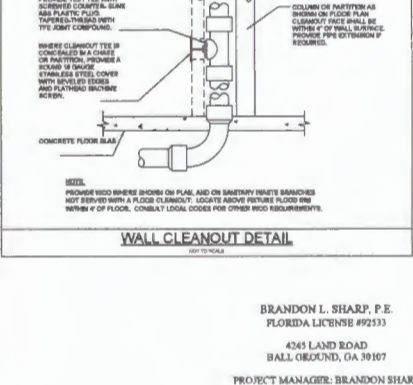
**EXTERIOR CLEANOUTS**  
NOT TO SCALE



**BLOW THRU UNIT CONDENSATE TRAP**  
NOT TO SCALE



**VENT STACK DETAIL**  
NOT TO SCALE



**WALL CLEANOUT DETAIL**  
NOT TO SCALE

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92373  
4345 LAND ROAD  
BALL BEOUND, GA 30167  
PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@passero.com

**BID SET**

**FIRE ALARM SYMBOLS**

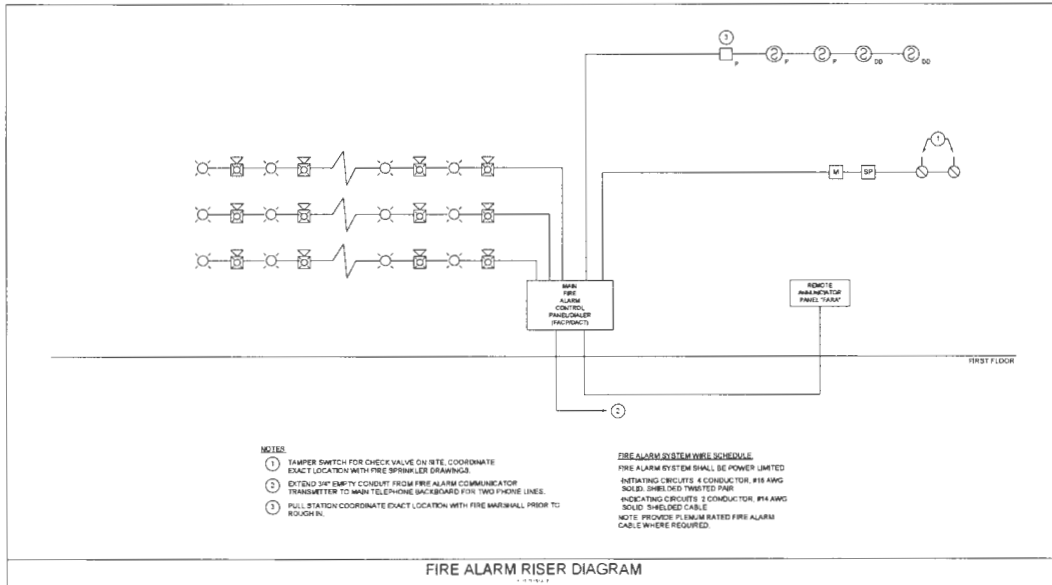
- ☐ FIRE ALARM MANUAL PULL STATION, NOTIFIER NFS-121X
- Ⓢ PHOTOELECTRIC SMOKE DETECTOR, NOTIFIER FSP-451B215LP
- Ⓢ PHOTOELECTRIC SMOKE AND CARBON MONOXIDE COMBINATION DETECTOR WITH SOUNDER BASE, NOTIFIER FCO-451(A) INTELLIGUO PLUS
- Ⓢ DUCT SMOKE DETECTOR WITH 24V OPERATION, NOTIFIER DH100ACDPP
- Ⓢ HEAT DETECTOR COMBINATION-RATE OF RISE AND 185 °F FIED TEMPERATURE, NOTIFIER FST-451B215LP
- ☐ ADDRESSABLE FIRE ALARM CONTROL PANEL, NOTIFIER NFS-320
- ☐ FIRE ALARM REMOTE ANNUNCIATOR, NOTIFIER LCD2-40
- ☐ FIRE ALARM HORN/STROBE COMBINATION WITH WHITE FINISH, NOTIFIER PDR SERIES  
NUMERAL ADJACENT INDICATES CANDELA RATING
- ☐ FIRE ALARM STROBE WITH WHITE FINISH, NOTIFIER SR SERIES  
NUMERAL ADJACENT INDICATES CANDELA RATING
- ☐ FIRE ALARM FLOW SWITCH (FURNISHED BY SPRINKLER CONTRACTOR)
- ☐ FIRE ALARM TAMPERS SWITCH (FURNISHED BY SPRINKLER CONTRACTOR)
- ☐ FIRE ALARM MAGNETIC DOOR HOLDER, NOTIFIER FM SERIES
- ☐ REMOTE TEST, NOTIFIER RTS451
- ☐ CONTROL RELAY MODULE, NOTIFIER CMX-2 (FAN SHUT DOWN)
- ☐ MONITOR MODULE (PROVIDE ONE FOR EACH FLOW SWITCH, TAMPERS SWITCH, AND AIR DUCT SMOKE DETECTOR), NOTIFIER MMX-101

**FIRE ALARM SHEET INDEX**

SHEET #	SHEET NAME
FA-001	FIRE ALARM NOTES
FA-201	FIRE ALARM PLAN

**FIRE ALARM NOTES**

- PART 1 - NOTES**
- A GENERAL ALARM SHALL BE ANNUNCIATED UPON ACTIVATION OF ANY INITIATION DEVICE INCLUDING PULL STATIONS, FLOW SWITCH OR DETECTION DEVICES.
  - A TROUBLE SIGNAL SHALL BE ANNUNCIATED UPON FAILURE OR REMOVAL OF ANY DETECTION OR MANUAL DEVICE.
  - A SUPERVISORY SIGNAL SHALL BE ANNUNCIATED UPON ACTIVATION OF ANY FIRE SPRINKLER SYSTEM TAMPERS SWITCH.
  - ALL FIRE ALARM SYSTEM DEVICES INSTALLED FOR THIS SPECIFIC PROJECT SHALL BE U.L. CERTIFIED.
  - ALL FIRE ALARMS WITH TWO DRIVERS SHALL BE ADDRESSABLE AND ALL FIRE ALARM CIRCUITS SHALL BE CLASS "B".
  - THE FIRE ALARM CONTRACTOR SHALL PROVIDE A DETAILED SET OF SHOP DRAWINGS INCLUDING DEVICE CUT SHEETS, A COMPLETE POINT TO POINT WIRING DIAGRAM FLOOR PLAN SHOWING INDICATE ALL DEVICE LOCATIONS AND NUMBERS, COMPLETE BATTERY CALCULATIONS AND COMPLETE NOTIFICATION APPLIANCE CIRCUIT CALCULATIONS FOR THE SYSTEM TO BE INSTALLED TO THE BUILDING DEPARTMENT AUTHORITY HAVING JURISDICTION AT THE TIME OF APPLICATION FOR BUILDING PERMIT.
  - PROVIDE THE OWNER WITH A COMPLETE FIRE ALARM SYSTEM AND INSTALLATION MANUAL COVERING ALL SYSTEM EQUIPMENT INSTALLED FOR THIS PROJECT. KEEP AT THE MAIN FIRE ALARM CONTROL PANEL.
  - PROVIDE CERTIFICATE OF COMPLETION AT THE FINAL INSPECTION OF THE FIRE ALARM SYSTEM.
  - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF NFPA 72 AND NATIONAL ELECTRICAL CODE.
- PART 2 - COMMENTS**
- THE MAIN FIRE ALARM CONTROL PANEL SHALL BE A MICROPROCESSOR BASE SYSTEM WITH ADDRESSABLE INTELLIGENT DETECTORS, ADDRESSABLE CONTROL, RELAY AND MONITOR ACCESS, VISIBLE AND AUDIBLE SYSTEM ANNUNCIATORS AND OTHER SYSTEM CONTROLLED DEVICES AS REQUIRED.
  - THE FIRE ALARM SHALL BE CAPABLE OF FUTURE EXPANSION AS REQUIRED.
  - ROUTING OF THE FIRE ALARM SYSTEM CONDUIT IS DIAGRAMMATIC ONLY. VERIFY EXACT LOCATION PRIOR TO STARTING WORK.
  - ALL FIRE ALARM NOTIFICATION APPLIANCES SHALL ACTIVATE UPON INITIATION OF THE GENERAL ALARM.
  - ALL FIRE ALARM AUDIBLE SIGNALS IN OPEN AREAS SHALL HAVE A THREE PLUS TEMPORAL PATTERN.
  - ALL FIRE ALARM AUDIBLE SIGNALS SHALL HAVE A SOUND LEVEL OF AT LEAST 15 DB ABOVE THE AVERAGE AMBIENT SOUND LEVEL.
  - SLEEPING ROOMS FOR UNATTENDED OCCUPANTS SHALL REQUIRE LOW FREQUENCY SOUNDERS PER SECTION 16.5.1 OF NFPA 72.
  - MANUAL STATIONS TO BE INSTALLED AT 48" INCHES A.F.F.
  - INCIDENT FIRE ALARM SYSTEM AUDIBLE SIGNALS COMBINATION DEVICES, SUCH THAT THE ENTIRE STROBE LENS IS 8" A.F.F. OR 8" BELOW CEILING, WHICHEVER IS LOWER.
  - INCIDENT FIRE ALARM SYSTEM STROBES SUCH THAT THE ENTIRE STROBE LENS IS 8" A.F.F. OR 8" BELOW CEILING WHICH EVER IS LOWER.
  - SMOKE DETECTORS TO BE INSTALLED AS REQUIRED BY NFPA 72.
  - INCIDENT FIRE ALARM MIN INCHES AT 8" A.F.F. OR 8" BELOW CEILING, WHICHEVER IS LOWER.
  - THE FIRE ALARM PANEL MUST HAVE AN EARTH GROUND CONNECTION AS REQUIRED BY THE SYSTEM MANUFACTURER, AND N.E.C. ARTICLE 760. MINIMUM WIRE SIZE IS 8# AWG FOR GROUND CONNECTION, INOTE PANEL NEUTRAL OR CONDUIT GROUND IS NOT ACCEPTABLE.
  - HVAC DUCT SMOKE DETECTORS SHALL BE CONNECTED TO THE FIRE ALARM CONTROL PANEL AND SHALL INITIATE A SUPERVISORY SIGNAL ONLY.
  - ALARM SYSTEM SHALL BE PROVIDED WITH PRIMARY AND SECONDARY POWER SUPPLIES. PRIMARY POWER SUPPLY SHALL BE BY BUILDING LIGHTING AND POWER PANELS. SECONDARY POWER SUPPLY SHALL BE BY BATTERIES WITHIN FIRE ALARM ENCLOSURES AND SHALL BE ABLE TO OPERATE THE SYSTEM UNDER DISCREET LOADS FOR A MINIMUM OF 24 HOURS AND ALL ALARM NOTIFICATION APPLIANCES AND OTHER CONNECTED LOADS FOR 10 MINUTES.
- PART 3 - WIRING**
- ALL WIRING AND CONDUIT TO COMPLY TO NFPA 72 AND NEC ARTICLE 760. WIRING SHALL BE SOLID COPPER OR 3 STRANDED COPPER WITH A MAX. O.D. 1/2" STRANDED FOR 16 GA AND 3/4" O.D. STRANDED COPPER WITH A MAXIMUM OF 13 STRANDED FOR SIZES 14 AND LARGER PER NEC 760 AND NFPA 72.
  - COLOR CODING MAY NOT APPLY TO EXISTING SYSTEMS. LABEL EXISTING WIRING ACCORDINGLY.
- PART 4 - FIRE PROTECTION**
- ALL FIRE STOP PENETRATIONS SHALL BE MADE WITH APPROVED (NEC) METALLIC CONDUIT AND SHALL BE SEALED WITH A U.L. APPROVED FIRE STOP MATERIAL.



CLIENT  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
2021 1326.0012  
FA-001

NO.	DATE	BY	DESCRIPTION

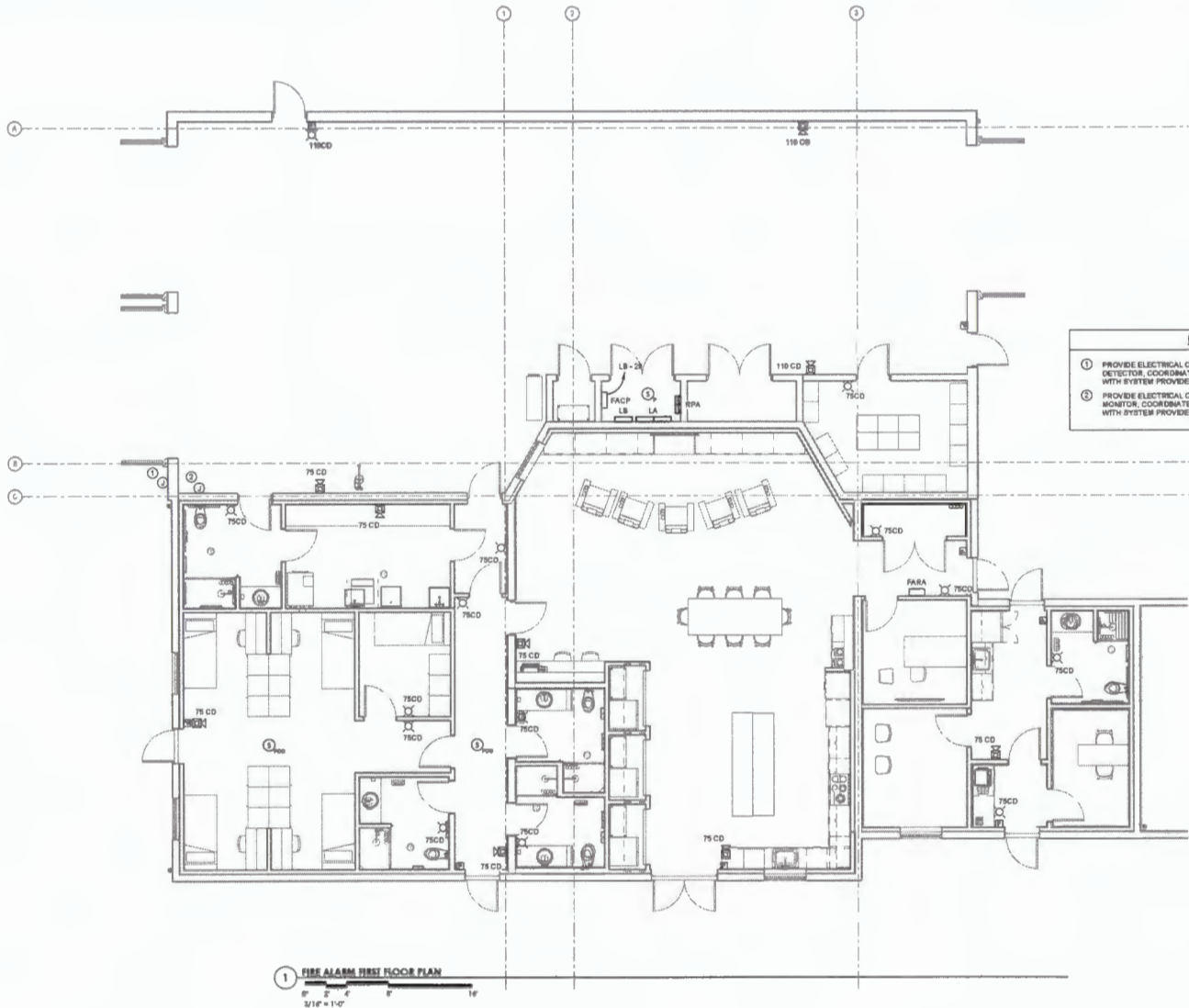
**FIRE ALARM NOTES**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HASTINGS  
COUNTY: SJC STATE: FLORIDA

2021326.0012  
FA-001

**BID SET**

NOVEMBER 15, 2024



**KEY NOTES**

- ① PROVIDE ELECTRICAL CONNECTION TO ALARM FOR FIBER FLOW DETECTOR, COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
- ② PROVIDE ELECTRICAL CONNECTION TO ALARM FOR FIBER FLOW MONITOR, COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.

① FIRE ALARM FIRST FLOOR PLAN  
3/16" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

11/15/24

NO.	DATE	BY	DESCRIPTION
1	11/15/24		Rev Set

FOR THE DESIGN OF THIS PROJECT, IT IS UNDERSTOOD THAT THE CLIENT HAS OBTAINED ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL, STATE AND FEDERAL AUTHORITIES.

**FIRE ALARM PLAN**

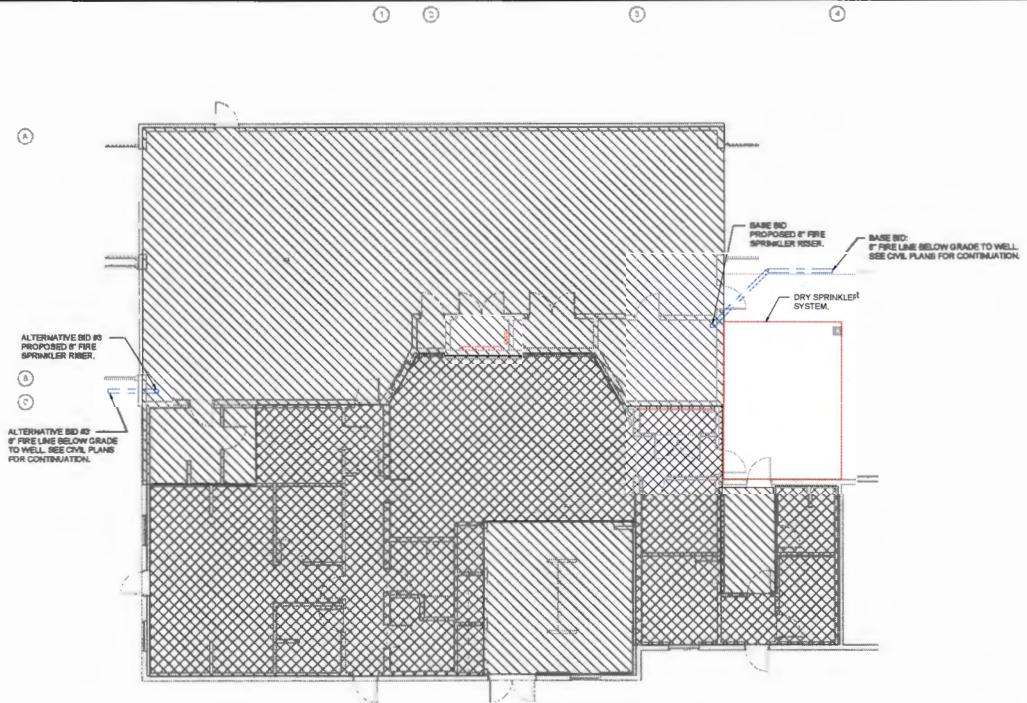
4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HAWTHORN  
COUNTY: SJC STATE: FLORIDA

PROJECT NO:  
20213261.0012

CONTRACT NO:  
FA-201

DATE:  
NOVEMBER 15, 2024

**BID SET**



1 Fire Sprinkler Plan - 1st Floor  
SCALE: 1/4" = 1'-0"

HAZARD CLASSIFICATION	
	<b>LIGHT HAZARD</b> 0.10 GPM / SQ. FT. 1,300 SQ. FT. REMOTE AREA 225 SQ. FT. MAX. COVERAGE 15' MAX BRANCH HOSE ALLOWANCE: 100 GPM
	<b>ORDINARY HAZARD (GROUP 1)</b> 0.15 GPM / SQ. FT. 1,300 SQ. FT. REMOTE AREA 130 SQ. FT. MAX. COVERAGE 15' MAX BRANCH HOSE ALLOWANCE: 225 GPM

**FIRE SPRINKLER SPECIFICATIONS**

- THE CONTRACTOR SHALL PROVIDE A COMPLETE FIRE SPRINKLER INSTALLATION FOR THE PROJECT AS INDICATED IN THE DESIGN DOCUMENTS. THE SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13, THE OWNER'S INSURANCE COMPANY IF ANY, THE STATE AND/OR LOCAL FIRE MARSHAL, THE LOCAL BUILDING DEPARTMENT, AND OTHER APPLICABLE RULES AND REGULATIONS.
- THE DESIGN DOCUMENTS ARE NOT AND SHALL NOT BE CONSIDERED SHOP DRAWINGS NOR INSTALLATION DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS AND, IF APPLICABLE, HYDRAULIC CALCULATIONS FOR REVIEW BY THE ARCHITECT/OWNER PRIOR TO COMMENCING ANY FIELD WORK. AS WELL, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND, IF APPLICABLE, HYDRAULIC CALCULATIONS TO THE LOCAL BUILDING DEPARTMENT OR AUTHORITY HAVING JURISDICTION AND OBTAIN ALL NECESSARY APPROVALS AND PERMITS FOR THE PROJECT.
- THE CONTRACTOR SHALL COORDINATE ALL FIRE SPRINKLER WORK WITH ALL OTHER CONSTRUCTION DISCIPLINES INCLUDING BUT NOT LIMITED TO HVAC, PLUMBING, ELECTRICAL, AND STRUCTURAL.
- THE SHOP DRAWINGS, INCLUDING HYDRAULIC CALCULATIONS, SHALL SHOW THE SIZES, TYPES, AND DIMENSIONAL LOCATIONS FOR ALL FIRE SPRINKLERS, SIGNAL, BRANCHES, AND EXISTING PIPING FOR THE WATER SUPPLY TO THE CONNECTION OF THE NEW SYSTEM.
- FIRE SPRINKLERS SHOWN REPRESENT THE MINIMUM REQUIREMENTS PER NFPA 13, CLASSIFICATION AS DESCRIBED ON PAGE.
- PIPING INSTALLATION
  - MAKE CHANGES IN SIZE OF PIPE WITH REDUCING FITTINGS; BUSHINGS ARE NOT PERMITTED.
  - CAP OFFSPRINGS IN PIPING DURING CONSTRUCTION.
  - EXCUT/CHAMFER ALL EXPOSED PIPES PASSING THROUGH FLOORS, WALL OR CEILING WITH EXCUT/CHAMFER.
  - PIPERATIONS THROUGH FIRE RATED WALLS SHALL BE FILLED WITH A UL LISTED FIRE RESISTANT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND TO PROVIDE AT LEAST THE MINIMUM FIRE RATING OF THE WALL.
  - ABOVE GROUND PIPE MATERIALS:
    - SCHEDULE 40 ALLOY 81, AMERICAN BILT FOR PIPE SIZE 1" THROUGH 2".
    - SCHEDULE 15 FOR PIPE SIZES 3-1/2" AND LARGER.
    - SCHEDULE 80 FOR 1/2" OR 3/4" NIPPLES. NIPPLES SHALL NOT EXCEED 4' IN LENGTH.
  - BELOW GRADE PIPE MATERIALS:
    - DUCTILE IRON
    - CEMENT MORTAR LINING FOR DUCTILE IRON PIPE AND FITTINGS FOR WATER AWWA C104 POLYETHYLENE ENCASEMENT FOR DUCTILE IRON PIPE (EXCEPT AWMA C115 PRESSURE-CAST JOINTS FOR DUCTILE IRON PIPE) PRESSURE PIPE AND FITTINGS AWWA C111 DUCTILE IRON PIPE, CENTRIFUGALLY CAST FOR WATER AWWA C111
  - FITTINGS:
    - SCHEDULE 40, ALLOY 81, AMERICAN BILT FOR PIPE SIZE 1" THROUGH 2".
    - BLACK CAST IRON FOR 2-1/2" THROUGH 24".
    - GROUNDWATER TYPE FOR 2-1/2" AND LARGER.
    - HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND LOCAL AUTHORITIES.
    - FINISHED SPRINKLERS SHALL BE IN CENTER OF CEILING TILE.
- HEAD TYPE PER LOCATION (TEMPERATURE RATING 180°F):
  - EXPOSED STRUCTURES/CEILING UPRISE
  - CUSTOMER HIGH PRIORITY CONCEALED PENDENT COVER TO MATCH CEILING TO BE WRITTEN
  - ALL OTHER SPACES: REAR RECESSED PENDENT
- THE CONTRACTOR SHALL REMOVE ANY DESIGN AND/OR REBARING MATERIALS NOT USED IN THE INSTALLATION PRIOR TO PROJECT COMPLETION.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF:
  - PREPARING SHOP DRAWINGS AND DOCUMENTS
  - SECURING PERMITS AND APPROVALS
  - LABOR
  - MATERIALS
  - CLEAN UP/DEBRIS REMOVAL

**HANGER SCHEDULE**

NFPA 13 TABLE 4-2.2.1 MAXIMUM DISTANCE BETWEEN HANGERS (FT - IN)

MEMBRAL PIPE SIZE	3/4"	1"	1-1/4"	1-1/2"	2"	3-1/2"	3"	3-1/2"	4"	6"	8"	10"
STEEL PIPE (SCEPT THREADED LIGHT-WALL)	NA	17-0	13-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHT-WALL STEEL PIPE	NA	17-0	13-0	13-0	13-0	13-0	13-0	13-0	NA	NA	NA	NA

NOTE: THERE SHALL BE NOT LESS THAN ONE HANGER FOR EACH SECTION OF PIPE, MIN. DIST. FROM ANY UPRISE/HEAD TO HANGER = 7"

**SYSTEM DESIGN NOTES**

- AUTOMATIC WET SYSTEM**
- PROVIDE AUTOMATIC WET FIRE SPRINKLER SYSTEM FOR ALL GENERAL OCCUPANCY AREAS.
  - SEE PLAN FOR PROPOSED RISER LOCATION.
  - PROVIDE TAMPERS SWITCHES FOR ALL VALVES ON SYSTEM COORDINATE WITH FIRE ALARM CONTRACTOR SUCH THAT ACTIVATION OF TAMPERS SWITCH WILL INITIATE A TROUBLE ALARM SIGNAL.
  - PROVIDE FLOW SWITCH AT MAIN RISER LOCATION. FIRE ALARM FLOW SIGNAL INITIATE GENERAL ALARM AND ALERT LOCAL FIRE DEPARTMENT OF ALARM EVENT.
  - SEE PLAN FOR HAZARD AREAS AND IDENTITIES.
  - SEE SITE PLAN (THIS SHEET) FOR POINT OF SERVICE LOCATION.
  - REFER TO CIVIL DOCUMENTS FOR YARD PIPING SPECIFICATIONS AND INSTALLATION DETAILS.
  - QUICK RESPONSE HEAD SHALL BE PERMITTED WHERE ALLOWED BY CODE.

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

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WARNING: USE OF THESE DRAWINGS IS BY USER'S OPTION AND WITHOUT LIABILITY TO THE ENGINEER. THESE PLANS ARE NOT TO BE REPRODUCED OR COPIED WITHOUT THE WRITTEN CONSENT OF PASSERO ENGINEERING ARCHITECTURE.

**FIRE SPRINKLER FLOOR PLAN**

4630 MEANE STREET

SJC - FLAGLER ESTATES FIRE STATION  
TOWNSHIP: Hastings  
COUNTY: SJC STATE: Florida

PROJECT NO: 20213261.0012

STATION NO: FS201

DATE: NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92533

4245 LAND ROAD  
BALL GROUND, GA 39107

PROJECT MANAGER: BRANDON SHARP  
B-SHARP | bsharp@passero.com

**BID SET**



**LIGHTING FIXTURE SCHEDULE**

MARK	DESCRIPTION	MODEL	LAMP	LUMENS	WATTAGE	COLOR TEMPERATURE	VOLTAGE	MOUNTING	NOTES
A1	HIGH BAY LENSED FIXTURE WITH NOCRI AND WET LOCATION RATED.	COOPER METALUX V14S-18-OR-UNV-LBMDZD1 SERIES	LED	18,000	138 W	4000 K	120	CEILING SURFACE	
A1 EM	HIGH BAY LENSED FIXTURE WITH NOCRI AND WET LOCATION RATED. PROVIDE 90 MINUTE BATTERY BACKUP.	COOPER METALUX V14S-18-OR-UNV-LBMDZD1 SERIES	LED	18,000	138 W	4000 K	120	CEILING SURFACE	
B1	2'-2" RECESSED LAY-IN FLAT PANEL WITH 80 CRI.	COOPER METALUX 2202175400 SERIES	LED	3,500	30 W	4000 K	120	CEILING RECESSED	
B1 EM	2'-2" RECESSED LAY-IN FLAT PANEL WITH 80 CRI. PROVIDE 14W EM PACK WITH REMOTE INDICATOR/TEST SWITCH.	COOPER METALUX 2202175400-EL14W SERIES	LED	3,500	30 W	4000 K	120	CEILING RECESSED	
C1	4" RECESSED DOWNLIGHT WITH NOCRI	COOPER METALUX LDM6 SERIES	LED	1,500	16 W	4000 K	120	CEILING PENDANT	
F1	52" 5-BLADE FAN WITH LIGHT. PROVIDE 2'-2" DOWNROD.	HUNTER GERMAINTOWN S1792 SERIES	LED	85 W	4000 K	120	CEILING PENDANT		
F2	52" 5-BLADE FAN ONLY. PROVIDE 2'-2" DOWNROD.	HARBOR BREEZE CYPRESS POINT CPRS2WWS SERIES	NONE	25 W	0 K	120	CEILING PENDANT		
G1	RECESSED READING LIGHT WITH INTERNAL ROCKER SWITCH. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATION OVER HEADCARD.	DANLITE EMERY EM4-650 SERIES	LED	5 W	4000 K	120	WALL RECESSED 1'-2" ABOVE HEADCARD		
J	2' LENSED STRIP LIGHT WITH NOCRI. PROVIDE MOUNTING ACCESSORIES.	COOPER METALUX 29NLED SERIES	LED	5,000	38 W	4000 K	120	CEILING SURFACE	
J1	4' LENSED STRIP LIGHT WITH NOCRI. PROVIDE MOUNTING ACCESSORIES.	COOPER METALUX 45NLED SERIES	LED	5,000	38 W	4000 K	120	CEILING SURFACE	
J2	4' LENSED STRIP LIGHT WITH NOCRI. PROVIDE MOUNTING ACCESSORIES.	COOPER METALUX 45NLED SERIES	LED	5,000	38 W	4000 K	120	CEILING SURFACE	
L1	1' LINEAR LED STRIP LIGHT WITH 120V DIMMING	AMERLUX PRC28 SERIES	LED	276	6 W	4000 K	120	WALL RECESSED	
S1	LINEAR WALL VANITY FIXTURE. 0-10V DIMMING. COORDINATE FINISH WITH ARCHITECT. COORDINATE EXACT LENGTH WITH ARCHITECTURAL DRAWINGS	ALCON 12100-14-W SERIES	LED	350	15 W	4000 K	120	WALL SURFACE	1
UC	UNDERCABINET STRIP LED LIGHTS. DIFFUSED. SELECTED BY OWNER. PROVIDED BY THIS CONTRACTOR.		LED	5 W	4000 K	120	WALL SURFACE		
WM1	LED EXTERIOR WALL PACK WITH FORWARD THROW DISTRIBUTION.	LS9 XMM SERIES	LED	8,000	50 W	4000 K	120	WALL SURFACE	2

**GENERAL NOTES:**

- EMERGENCY FIXTURES 'EM' INDICATED IN THIS SCHEDULE FIXTURE SHALL BE WIRED THROUGH INVERTER FOR EMERGENCY OPERATION. UNIT EQUIPMENT FOR EMERGENCY ILLUMINATION SHALL BE PROVIDED WITH MINIMUM OF TWO (2) ILLUMINATION SOURCE SUCH THAT FAILURE OF SOURCE DOES NOT AFFECT THE OTHER PER NEC 700.19 (B).
- EMERGENCY FIXTURES 'EM' INDICATED IN THIS SCHEDULE SHALL BE CAPABLE OF 90 MINUTE BATTERY BACK-UP OPERATION.
- PROVIDE COMPATIBLE EMERGENCY BATTERY PACK WITHOUT LAMPS (DUAL-LITE LM SERIES OR EQUAL) FOR ALL REMOTE HEAD TYPE EMERGENCY FIXTURES. INSTALL ON INTERIOR SIDE OF WALL AND LOCATE ABOVE ACCESSIBLE CEILING WHEN CEILING ARE PRESENT.
- COORDINATE EXACT LOCATION AND FINISH OPTIONS OF ALL EMERGENCY REMOTE TEST SWITCHES WITH ARCHITECT PRIOR TO ROUGH-IN AND CONNECT FOR OPERATION.
- ALL SUSPENDED LIGHT FIXTURES SHALL BE MOUNTED WITH THREADED ROD. PROVIDE UNISTRUT AS REQUIRED FOR MOUNTING BETWEEN BAR JOISTS.
- FINISHES OF ALL FIXTURES INDICATED IN THIS SCHEDULE SHALL MATCH THE FINISH ADJACENT TO THE CEILING/WALL THE FIXTURE IS MOUNTED UPON UNLESS NOTED OTHERWISE. PROVIDE CUSTOM COLOR FINISH IF FINISH REQUIRED IS NOT A STANDARD FIXTURE OPTION.
- ALL LINEAR FIXTURES INSTALLED IN A 4' X 4' CEILING SYSTEM SHALL BE MOUNTED SO THAT THE BOTTOM OF THE FIXTURE IS FLUSH WITH THE CEILING SYSTEM. RECESSED MOUNTING OF FIXTURES SHALL NOT BE ACCEPTABLE. PROVIDE CREE CR-80C MOUNTING CLIP KIT AS REQUIRED.

**NOTES:**

- VERIFY CEILING TYPES PRIOR TO ORDERING FIXTURES.
- VERIFY EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS.
- MOUNT FIXTURE AT HEIGHT AS INDICATED (BOTTOM OF FIXTURE). COORDINATE WITH EQUIPMENT PRIOR TO ROUGH IN.
- MOUNT FIXTURE AT HEIGHT AS INDICATED (CENTER OF FIXTURE). COORDINATE WITH EQUIPMENT PRIOR TO ROUGH IN.
- COORDINATE EXACT LENGTHS PRIOR TO ORDERING TO ACHIEVE LENGTH AS INDICATED ON PLANS.

**EMERGENCY LIGHTING FIXTURE SCHEDULE**

MARK	DESCRIPTION	MODEL	LAMP	LUMENS	WATTAGE	COLOR TEMPERATURE	VOLTAGE	MOUNTING	NOTES
EM1	EMERGENCY LIGHT WITH 90 MINUTE BATTERY BACKUP.	COOPER SURE-LITES AP 250 LED SERIES							
EM2	ARCHITECTURAL OUTDOOR LUMINAIRE EMERGENCY LIGHT. ACCULDED OPTIC AND SELF-DIAGNOSTICS. WET LOCATION RATING.	COOPER SURE-LITES SEL0W1A50P5 SERIES					120	WALL SURFACE	
EX3	COMBINATION RED LED EXIT SIGN AND EMERGENCY LIGHT WITH 90 MINUTE BATTERY BACKUP.	COOPER SURE-LITES APC 7 R 50 SERIES			3		120	CEILING / WALL	

**GENERAL NOTES:**

- EMERGENCY FIXTURES INDICATED IN THIS SCHEDULE SHALL BE CAPABLE OF 90 MINUTE BATTERY BACK-UP OPERATION. UNIT EQUIPMENT FOR EMERGENCY ILLUMINATION SHALL BE PROVIDED WITH MINIMUM OF TWO (2) ILLUMINATION SOURCE SUCH THAT FAILURE OF SOURCE DOES NOT AFFECT THE OTHER PER NEC 700.19 (B).
- PROVIDE COMPATIBLE EMERGENCY BATTERY PACK WITHOUT LAMPS (DUAL-LITE LM SERIES OR EQUAL) FOR ALL REMOTE HEAD TYPE EMERGENCY FIXTURES. INSTALL ON INTERIOR SIDE OF WALL AND LOCATE ABOVE ACCESSIBLE CEILING WHEN CEILING ARE PRESENT.
- COORDINATE EXACT LOCATION AND FINISH OPTIONS OF ALL EMERGENCY REMOTE TEST SWITCHES WITH ARCHITECT PRIOR TO ROUGH-IN AND CONNECT FOR OPERATION.
- SUSPENDED EXIT SIGNS SHALL BE SUPPORTED WITH PANKED STEMS AND CONCEALED MOUNTING PLATES BY PENDANT SYSTEMS OR EQUAL. (EXCEPTIONS TO THIS REQUIREMENT INCLUDE WAREHOUSE, STORAGE AND INDUSTRIAL SPACES.)
- EXIT SIGNS LOCATED AT STOREFRONT EXITS AND ADJACENT CEILING IS GREATER THAN 12" X 4" F.F. SHALL BE INSTALLED CENTERED ON HORIZONTAL MULLION OF THE STOREFRONT SYSTEM ABOVE THE DOORWAY. ALL WIRING SHALL BE CONCEALED WITHIN MULLIONS AND SIGN SHALL BE INSTALLED FLUSH. NO VISIBLE BACK BOXES SHALL BE ALLOWED.

**NOTES:**

- REFER TO ELECTRICAL SYMBOLS THIS SHEET FOR EXIT SIGN MOUNTING REQUIREMENTS.
- MOUNT FIXTURE 1'-2" (BOTTOM OF FIXTURE) ABOVE TOP OF DOOR FRAME / GLAZING.

CLIENT  
CIT. JOHN'S COUNTY  
4040 Lewis Speedway  
Ct. Augustine, Florida 32084

**PROMUS INC.**

2021.12.28  
2021.12.28  
2021.12.28  
2021.12.28

NO.	DATE	BY	DESCRIPTION
	11/15/24	Red Ser	

SEE REVISIONS OF THIS PLAN. REVISED DATE OF REVISION IS SHOWN IN THE REVISIONS COLUMN. REVISED DATE OF REVISION IS SHOWN IN THE REVISIONS COLUMN.

**ELECTRICAL NOTES**

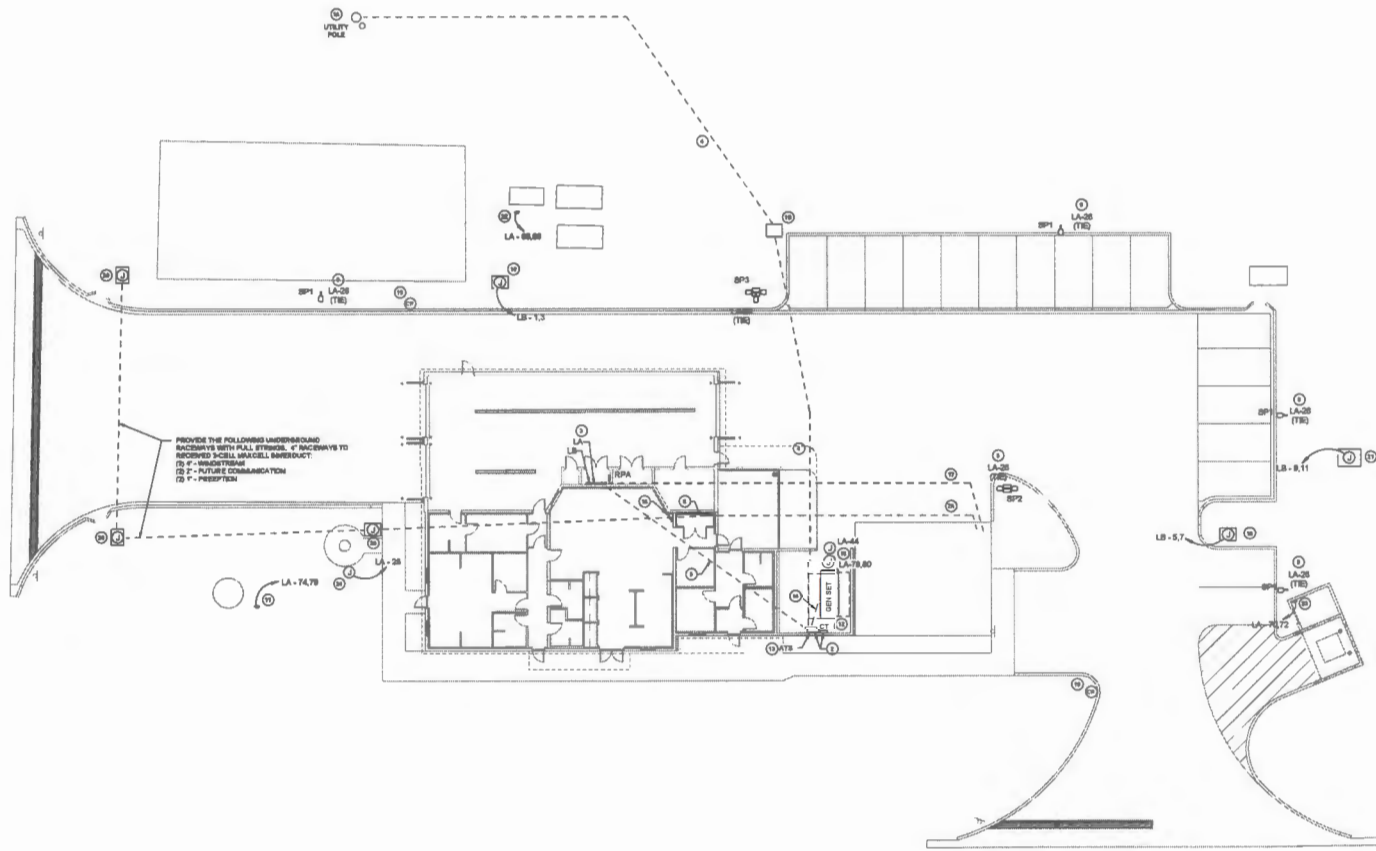
4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HASTINGS  
COUNTY: SJC STATE: FLORIDA

2021326;.0012

E-002

NOVEMBER 15, 2024

**BID SET**



PROVIDE THE FOLLOWING UNDERGROUND RACETRAYS WITH FULL STRONG, 4" RACETRAYS TO RECEIVED 3-CORE MINIWELL HARDBOARD:  
 (1) 4" - MINIWELL  
 (2) 4" - FUTURE COMMUNICATION  
 (3) 4" - PREPARED

- KEY NOTES**
- (1) PROPOSED LOCATION OF UTILITY OH POLE MOUNTED TRANSFORMER. COORDINATE EXACT LOCATION WITH UTILITY PRIOR TO BID. PROVIDE AN ALTERNATE COST IN BID FOR SECONDARY LOCATION IF DIRECTED BY UTILITY.
  - (2) PROPOSED LOCATION OF UTILITY PULL BOX. PROVIDE IN ACCORDANCE WITH UTILITY STANDARDS.
  - (3) PROPOSED LOCATION OF BUILDING MAIN (ATS) AND CT METER ENCLOSURE. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (4) PROPOSED LOCATION OF ELECTRICAL EQUIPMENT IN ELECTRICAL ROOM. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (5) PROPOSED ROUTING OF UNDERGROUND SERVICE LATERAL. COORDINATE EXACT ROUTING AS REQUIRED. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (6) PROPOSED ROUTING OF UNDERGROUND WIRING. COORDINATE EXACT ROUTING AS REQUIRED. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (7) PROPOSED LOCATION OF BUILDING COMMUNICATION BACKBONE IN IT/COMM ROOM. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (8) NOT IN USE.
  - (9) PROPOSED ROUTING OF COMMUNICATION CONDUITS FOR BID ALTERNATE STORAGE BUILDING. COORDINATE EXACT ROUTING AS REQUIRED. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (10) WIRE CIRCUIT THRU LIGHTING CONTROL RELAY PANEL, "RPA".
  - (11) NOT IN USE.
  - (12) PROPOSED CONNECTION POINT FOR FIRE WELL PUMP CONTROLLER. PROVIDE (1) 1" FOR CONDUCTORS. COORDINATE EXACT REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN AND CONNECT FOR OPERATION.
  - (13) PROPOSED LOCATION OF GENERATOR. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (14) PROPOSED LOCATION OF ATS. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (15) PROPOSED ROUTING OF UNDERGROUND CONDUITS FOR GENERATOR. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (16) PROVIDE CIRCUITS AS INDICATED FOR GENERATOR BATTERY CHARGER AND JACKET HEATER.
  - (17) PROPOSED LOCATION OF GENERATOR REMOTE ANNUNCIATOR PANEL. REFER TO SHEET E501 FOR ADDITIONAL REQUIREMENTS.
  - (18) PROPOSED CONDUIT ROUTING FROM PANEL LB TO BID ALTERNATE STORAGE BUILDING. REFER TO SHEET E501 FOR REQUIREMENTS.
  - (19) PROPOSED LOCATION FOR POWER TO GATE MOTOR. REFER TO PULL BOX DETAIL ON SHEET E701 FOR REQUIREMENTS.
  - (20) PROVIDE WIRING FOR GATE CARD READER AS REQUIRED FOR OPERATION. COORDINATE WITH EQUIPMENT INSTALLER PRIOR TO ROUGH IN.
  - (21) PROPOSED LOCATION FOR COMMUNICATION JUNCTION BOX. REFER TO PULL BOX DETAIL ON SHEET E701 FOR REQUIREMENTS.
  - (22) PROPOSED CONNECTION POINT FOR FOR POLYAN POWER. REFER TO PULL BOX DETAIL ON SHEET E701 FOR REQUIREMENTS.
  - (23) PROPOSED CONNECTION POINT FOR SEPTIC PUMP/CONTROLLER. PROVIDE (1) 1" FOR CONDUCTORS. COORDINATE EXACT REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN AND CONNECT FOR OPERATION.
  - (24) PROPOSED CONNECTION POINT FOR DOMESTIC PUMP CONTROLLER. PROVIDE (1) 1" FOR CONDUCTORS. COORDINATE EXACT REQUIREMENTS AND LOCATION PRIOR TO ROUGH IN AND CONNECT FOR OPERATION.
  - (25) PROPOSED CONNECTION POINT FOR FLAGPOLE LIGHTING. COORDINATE EXACT REQUIREMENTS WITH OWNER.



CLIENT:  
 ST. JOHN'S COUNTY  
 1040 Lewis Speedway  
 St. Augustine, Florida 32084

**PROMUS INC.**  
 301 LAKE WALKER  
 SUITE 100, PALM BEACH, FL 33480  
 PHONE: 561-850-1517 FAX: 561-850-0900  
 PROJECT NUMBER: 20213261.0012  
 SHEET NUMBER: 101  
 DATE: 11/15/24

NO.	DATE	BY	DESCRIPTION
	11/15/24		Bld Set

**ELECTRICAL SITE PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: HASTINGS  
 COUNTY: SJC STATE: FLA. SIDA

PROJECT NO.: 20213261.0012

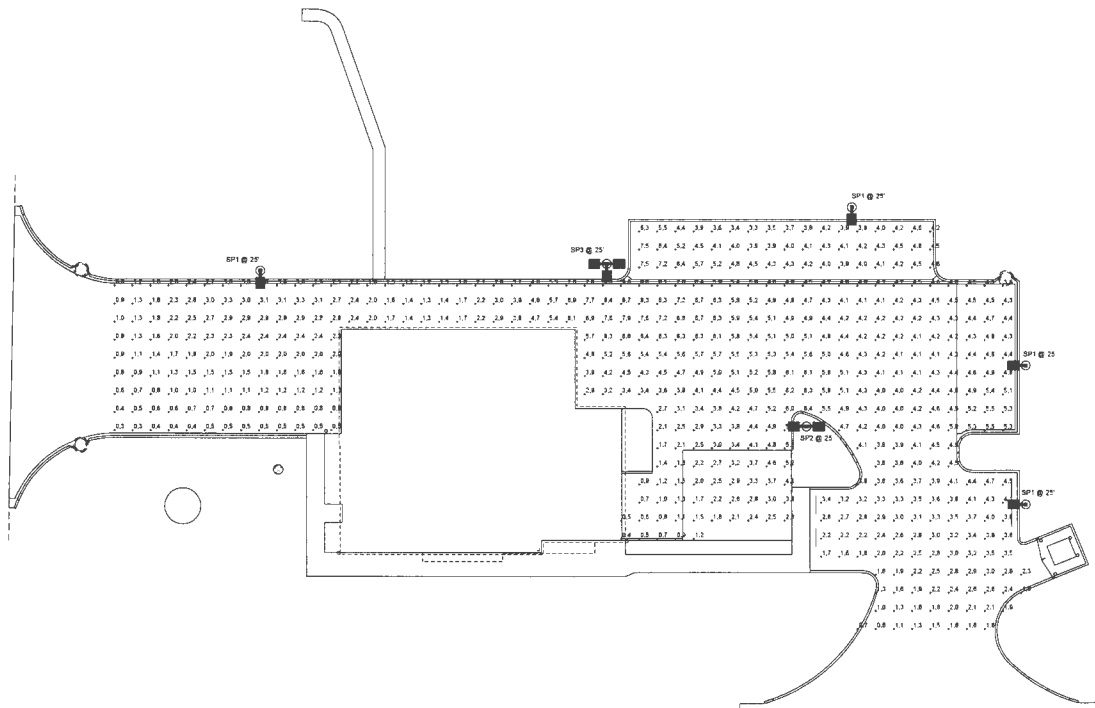
DRAWING: E-101

DATE: NOVEMBER 15, 2024

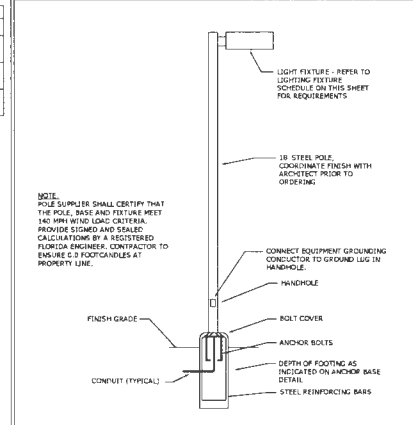
**BID SET**



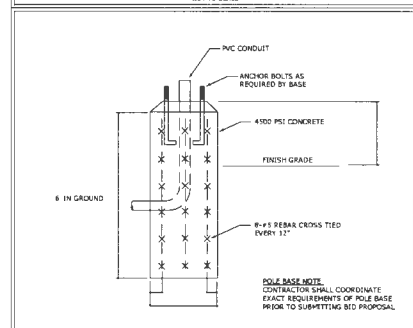
SITE LIGHTING FIXTURE SCHEDULE							
SYMBOL	LABEL	CATALOG NUMBER	MANUFACTURER	DESCRIPTION	LUMENS PER LAMP	LIGHT LOSS FACTOR	WATTAGE
⌋	SPI1	GALN/SASA-FADULTS	LSI	TYPE W MEDIUM W/ BACKLIGHT FULL CUTOFF	24000	0.9	93
⌋	SPI2	GALN/SASA-FADULTS	LSI	TYPE W MEDIUM W/ BACKLIGHT FULL CUTOFF	24000	0.9	144
⌋	SPI3	GALN/SASA-FADULTS	LSI	TYPE W MEDIUM W/ BACKLIGHT FULL CUTOFF	24000	0.9	279



① SITE PHOTOMETRIC PLAN  
1" = 20'-0"



POLE DETAIL-TYPICAL  
NOT TO SCALE



POLE ANCHOR BASE DETAIL  
NOT TO SCALE

DESCRIPTION	SYMBOL	STATISTICS				
		AVG	MAX	MIN	MAX/MIN	AUGMIN
PARKING LOT	+	1.7%	0.0	0.0	N/A	N/A

**PASSERO**  
engineering architecture

**PROMUS**

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
2017 JACOBO DRIVE  
SUITE 1000  
LAKE WORTH, FL 33464  
TEL: 561-966-1111  
WWW.PROMUSINC.COM

NO.	DATE	BY	DESCRIPTION

FOR THE PROJECT, THE DESIGNER HAS OBTAINED ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES. THE DESIGNER HAS OBTAINED ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES.

**ELECTRICAL SITE PHOTOMETRICS**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

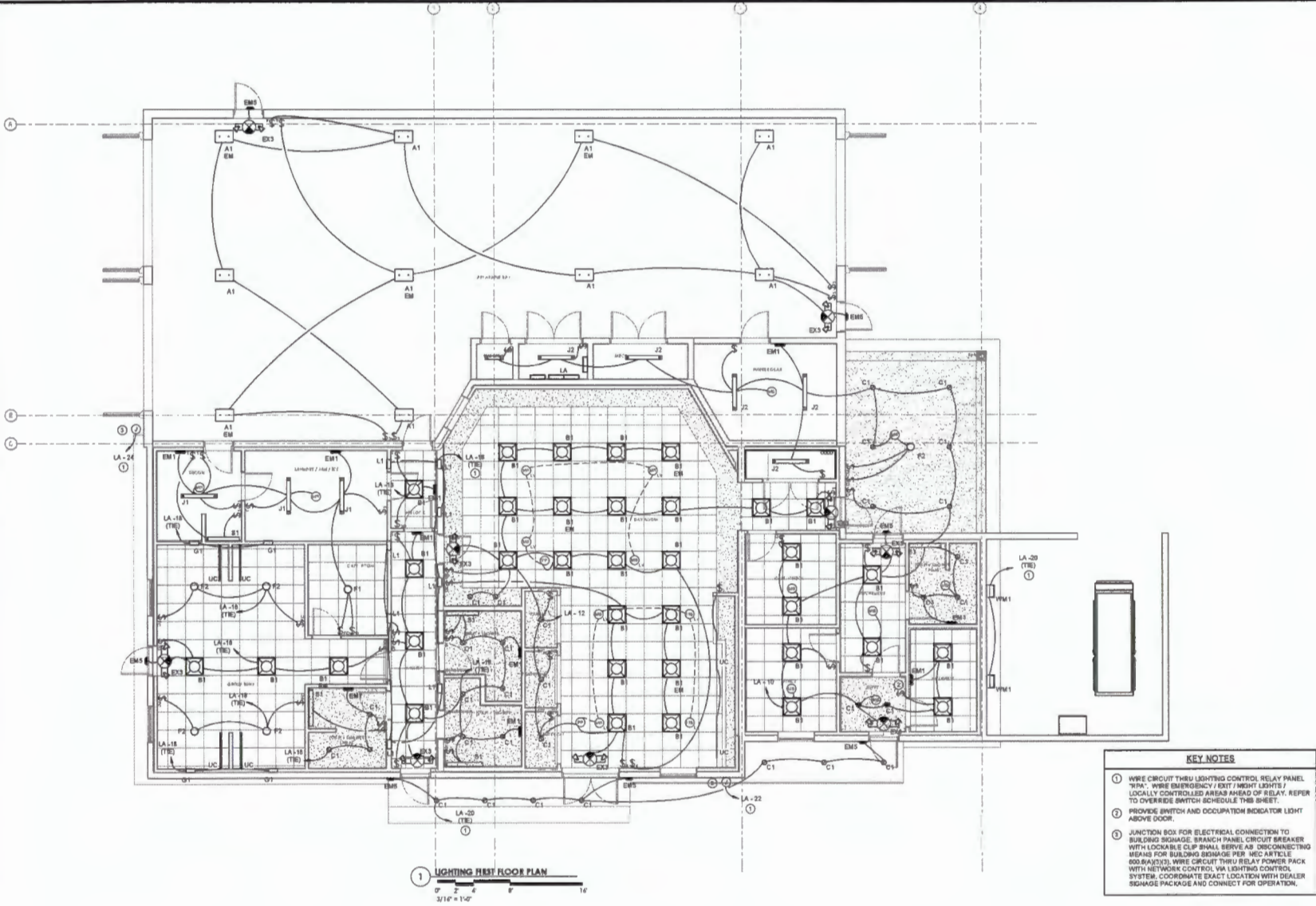
TOWN/CITY: HASTINGS  
COUNTY: SJC STATE: FLORIDA

PROJECT NO:  
**20213261.0012**

DATE:  
**E-102**

DATE:  
**NOVEMBER 15, 2024**

**BID SET**



**KEY NOTES**

- 1 WIRE CIRCUIT THRU LIGHTING CONTROL RELAY PANEL "PCA". WIRE EMERGENCY / EXIT / NIGHT LIGHTS / LOCALLY CONTROLLED AREAS AHEAD OF RELAY. REFER TO OVERRIDE SWITCH SCHEDULE THIS SHEET.
- 2 PROVIDE SWITCH AND OCCUPATION INDICATOR LIGHT ABOVE DOOR.
- 3 JUNCTION BOX FOR ELECTRICAL CONNECTION TO BUILDING SIGNAGE. BRANCH PANEL CIRCUIT BREAKER WITH LOCKABLE CLIP SHALL SERVE AS DISCONNECTING MEANS FOR BUILDING SIGNAGE PER NEC ARTICLE 605.8(A)(2)(3). WIRE CIRCUIT THRU RELAY POWER PACK WITH NETWORK CONTROL, VIA LIGHTING CONTROL SYSTEM. COORDINATE EXACT LOCATION WITH DEALER SIGNAGE PACKAGE AND CONNECT FOR OPERATION.

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

OWNER: ST. JOHN'S COUNTY  
PROJECT: 4630 MELANIE STREET  
DATE: 11/15/24  
BY: [Signature]

NO.	DATE	BY	DESCRIPTION
1	11/15/24	Red Sea	

NOT BE USED FOR ANY OTHER PROJECTS WITHOUT THE WRITTEN PERMISSION OF PASSERO ENGINEERING ARCHITECTURE.

**LIGHTING FLOOR PLAN**

4630 MELANIE STREET

SJC - FLAGLER ESTATES FIRE STATION

TOWN/CITY: HASTINGS

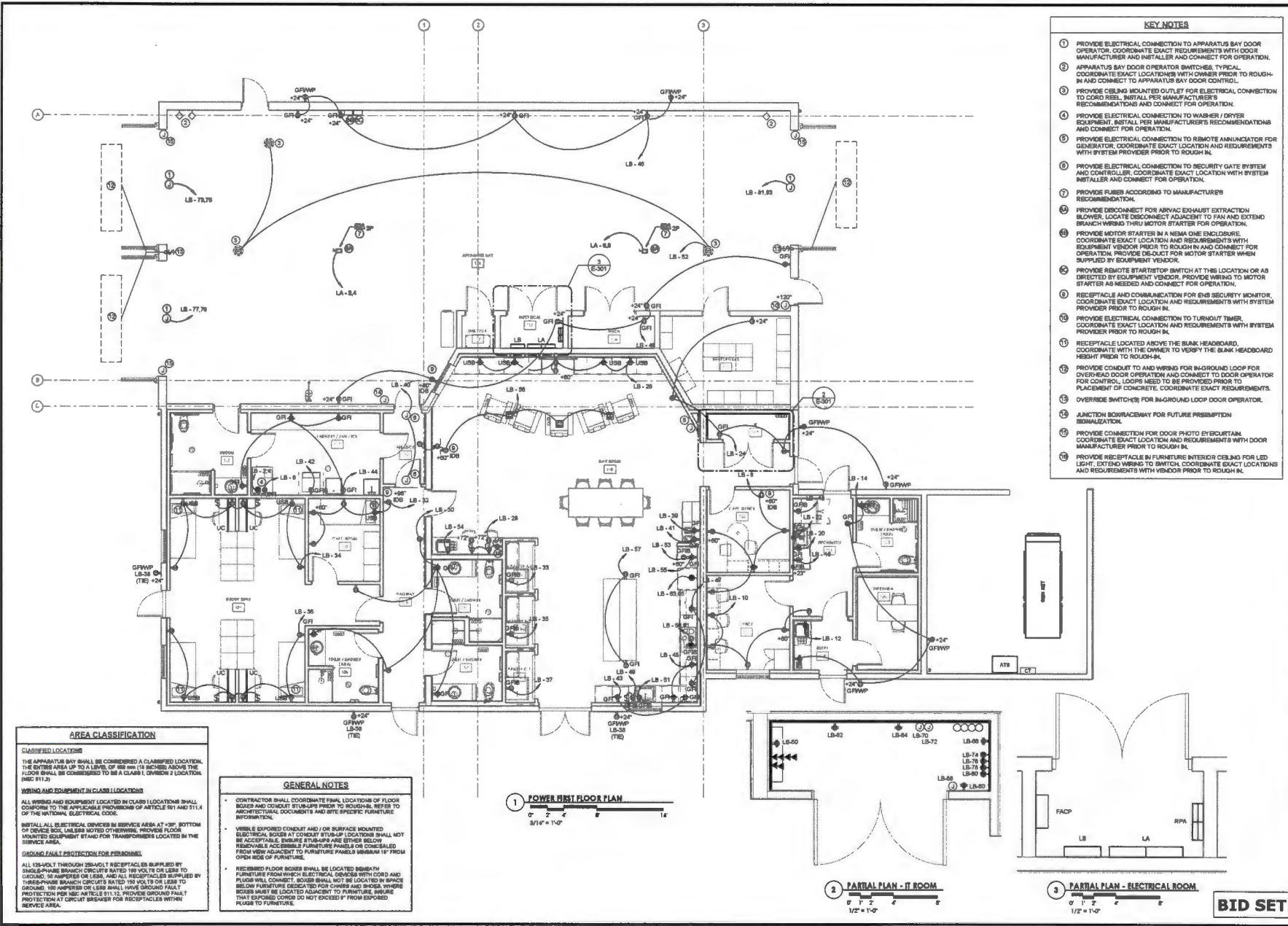
COUNTY: SJC STATE: FLORIDA

PROJECT NO: 20213261.0012

DATE: E-201

DATE: NOVEMBER 15, 2024

**BID SET**



- KEY NOTES**
- 1 PROVIDE ELECTRICAL CONNECTION TO APPARATUS BAY DOOR OPERATOR. COORDINATE EXACT REQUIREMENTS WITH DOOR MANUFACTURER AND INSTALLER AND CONNECT FOR OPERATION.
  - 2 APPARATUS BAY DOOR OPERATOR SWITCHES: TYPICAL COORDINATE EXACT LOCATION(S) WITH OWNER PRIOR TO ROUGH-IN AND CONNECT TO APPARATUS BAY DOOR CONTROL.
  - 3 PROVIDE CEILING MOUNTED OUTLET FOR ELECTRICAL CONNECTION TO CORD REEL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND CONNECT FOR OPERATION.
  - 4 PROVIDE ELECTRICAL CONNECTION TO WASHER / DRYER EQUIPMENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND CONNECT FOR OPERATION.
  - 5 PROVIDE ELECTRICAL CONNECTION TO REMOTE ANNUNCIATOR FOR GENERATOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 6 PROVIDE ELECTRICAL CONNECTION TO SECURITY GATE SYSTEM AND CONTROLLER. COORDINATE EXACT LOCATION WITH SYSTEM INSTALLER AND CONNECT FOR OPERATION.
  - 7 PROVIDE FIBER ACCORDING TO MANUFACTURER'S RECOMMENDATION.
  - 8 PROVIDE DISCONNECT FOR ARVAC EXHAUST EXTRACTION BLOWER. LOCATE DISCONNECT ADJACENT TO PAN AND EXTEND BRANCH WIRING THRU MOTOR STARTER FOR OPERATION.
  - 9 PROVIDE MOTOR STARTER IN A NEMA ONE ENCLOSURE. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH EQUIPMENT VENDOR PRIOR TO ROUGH IN AND CONNECT FOR OPERATION. PROVIDE DISCONNECT FOR MOTOR STARTER WHEN SUPPLIED BY EQUIPMENT VENDOR.
  - 10 PROVIDE REMOTE START/STOP SWITCH AT THIS LOCATION OR AS DIRECTED BY EQUIPMENT VENDOR. PROVIDE WIRING TO MOTOR STARTER AS NEEDED AND CONNECT FOR OPERATION.
  - 11 RECEPTACLE AND COMMUNICATION FOR EMS SECURITY MONITOR. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 12 PROVIDE ELECTRICAL CONNECTION TO TURNOUT TIMER. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 13 RECEPTACLE LOCATED ABOVE THE BLANK HEADBOARD. COORDINATE WITH THE OWNER TO VERIFY THE BLANK HEADBOARD HEIGHT PRIOR TO ROUGH-IN.
  - 14 PROVIDE CONDUIT TO AND WIRING FOR IN-GROUND LOOP FOR OVERHEAD DOOR OPERATION AND CONNECT TO DOOR OPERATOR FOR CONTROL. LOOPS NEED TO BE PROVIDED PRIOR TO PLACEMENT OF CONCRETE. COORDINATE EXACT REQUIREMENTS.
  - 15 OVERRIDE SWITCHES FOR IN-GROUND LOOP DOOR OPERATOR.
  - 16 JUNCTION BOX/RACEWAY FOR FUTURE PREEMPTION SIGNALIZATION.
  - 17 PROVIDE CONNECTION FOR DOOR PHOTO EYE/CURTAIN. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH DOOR MANUFACTURER PRIOR TO ROUGH IN.
  - 18 PROVIDE RECEPTACLE IN FURNITURE INTERIOR CEILING FOR LED LIGHT. EXTEND WIRING TO SWITCH. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH VENDOR PRIOR TO ROUGH IN.

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
4040 LEWIS SPEEDWAY  
ST. AUGUSTINE, FL 32084  
OFFICE: 386-5348  
PROJECT: 20213261.0012  
DATE: 11/15/24  
BY: [Signature]  
DESCRIPTION: Bid Set

NO.	DATE	BY	DESCRIPTION
1	11/15/24	[Signature]	Bid Set

UNLESS OTHERWISE NOTED, ALL DIMENSIONS SHALL BE IN FEET AND INCHES. DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.

**POWER FLOOR PLAN**

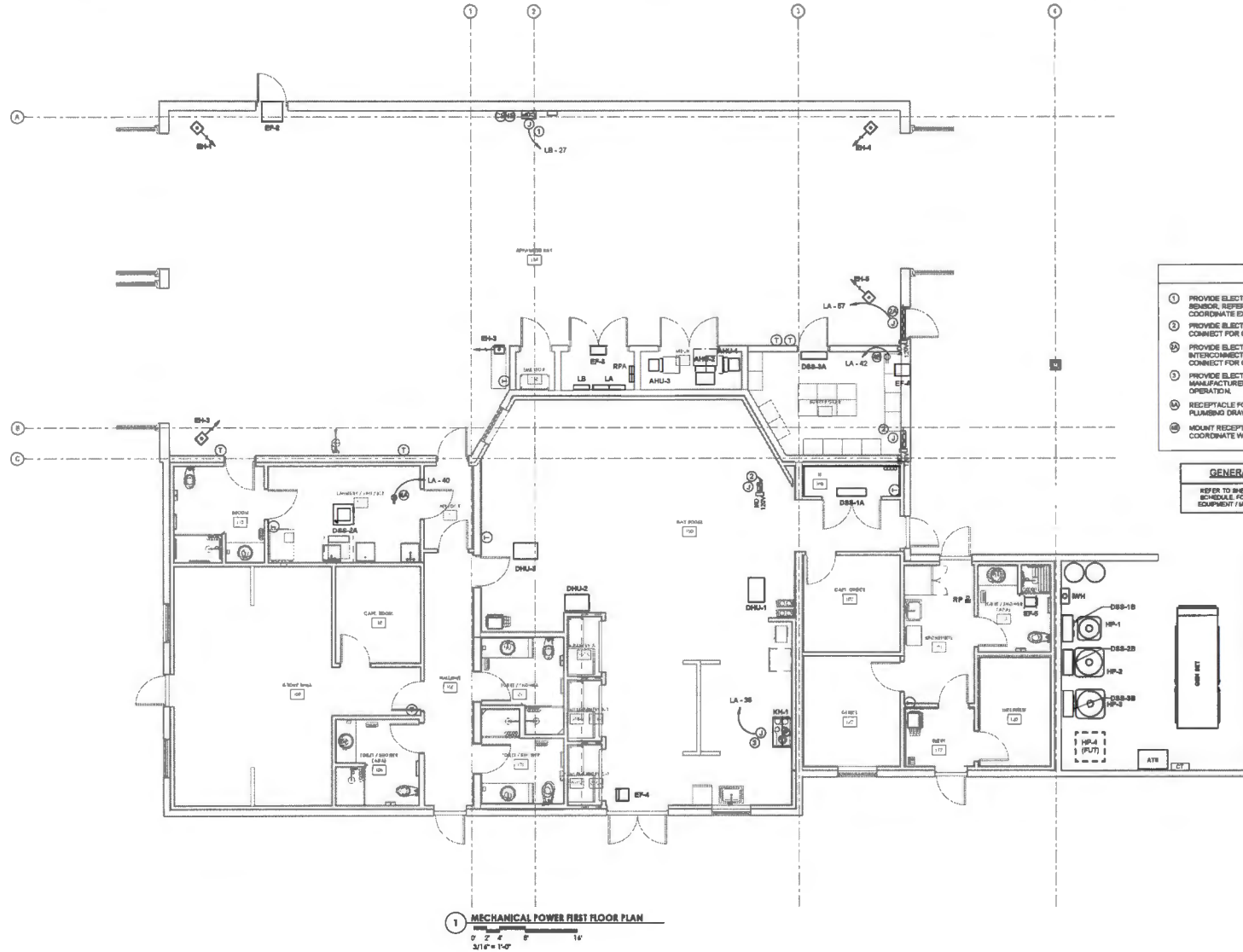
4630 MELANIE STREET  
SIC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HASTINGS  
COUNTY: SIC STATE: FLORIDA

20213261.0012

E-301

NOVEMBER 15, 2024

**BID SET**



- KEY NOTES**
- ① PROVIDE ELECTRICAL CONNECTION TO CARBON MONOXIDE PANEL / BEHINDER. REFER TO DETAIL ON THIS SHEET FOR REQUIREMENTS. COORDINATE EXACT LOCATION WITH SYSTEM SUPPLIER.
  - ② PROVIDE ELECTRICAL CONNECTION TO DAMPER AS REQUIRED AND CONNECT FOR OPERATION.
  - ③ PROVIDE ELECTRICAL CONNECTION TO DAMPER. PROVIDE INTERCONNECTION OF DEVICES AS REQUIRED TO CO-FAN-EL AND CONNECT FOR OPERATION.
  - ④ PROVIDE ELECTRICAL CONNECTION TO HOOD. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND CONNECT FOR OPERATION.
  - ⑤ RECEPTACLE FOR CONDENSATE PUMP. COORDINATE WITH PLUMBING DRAWINGS PRIOR TO ROUGH IN.
  - ⑥ MOUNT RECEPTACLE ABOVE DROP CEILING FOR PUMP. COORDINATE WITH SPRINKLER CONTRACTOR PRIOR TO ROUGH IN.

**GENERAL MECHANICAL POWER NOTE**

REFER TO SHEET EP-1 MECHANICAL EQUIPMENT-ELECTRICAL SCHEDULE FOR POWER REQUIREMENTS TO ALL MECHANICAL EQUIPMENT / MOTORIZED DAMPERS INDICATED ON THIS SHEET.

**MECHANICAL POWER FIRST FLOOR PLAN**  
0 2 4 8 16'  
3/16" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

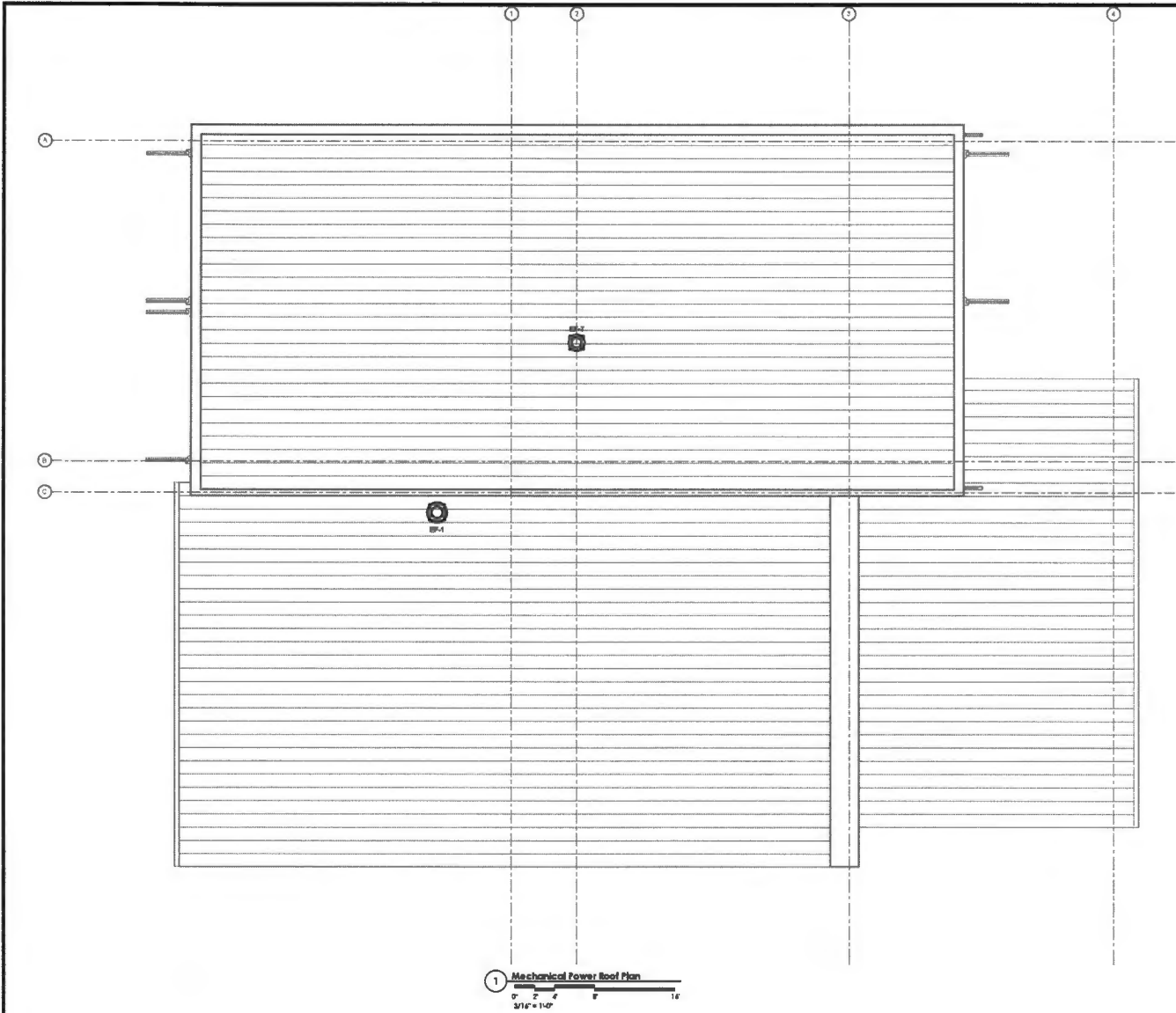
4101 EAST HAVEN  
AVENUE, WINDYBROOK, GA 30527  
PH: 404.875.1100  
FAX: 404.875.1101  
WWW.PROMUSINC.COM

NO.	DATE	BY	DESCRIPTION
1	11/15/24		Bid Set

**MECHANICAL POWER FLOOR PLAN**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: PALM BEACH  
COUNTY: BISCAYNE STATE: FLORIDA  
PROJECT NO.: 20213261.0012  
DRAWING: E-401  
DATE: NOVEMBER 15, 2024

**BID SET**



1 Mechanical Power Roof Plan  
 0 2 4 8 16  
 3/16" = 1'-0"

**GENERAL MECHANICAL POWER NOTE**  
 REFER TO SHEET EP01 MECHANICAL EQUIPMENT-ELECTRICAL SCHEDULE FOR POWER REQUIREMENTS TO ALL MECHANICAL EQUIPMENT / NO TORQUED BOLTS INDICATED ON THIS SHEET.

**PASSERO**  
 engineering architecture

**PROMUS**

ST-009

CLIENT:  
 ST. JOHN'S COUNTY  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**PROMUS INC.**  
 4040 LEWIS ROAD (772) 346-2116  
 ST. AUGUSTINE, FL 32084  
 PROJECT #18008  
 SHEET # EP-009  
 DATE 11/15/24  
 DESIGNER  
 CHECKER  
 APPROVED

NO.	DATE	BY	DESCRIPTION

SCALE: 3/16" = 1'-0"  
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.  
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.

**MECHANICAL POWER ROOF PLAN**

4630 MELANIE STREET  
 SJC - FLAGLER ESTATES FIRE STATION  
 TOWN/CITY: HARTINGS  
 COUNTY: SJC STATE: FLORIDA

PROJECT NO.  
 20213261.0012

SHEET NO.  
 E-402

DATE  
 NOVEMBER 15, 2024

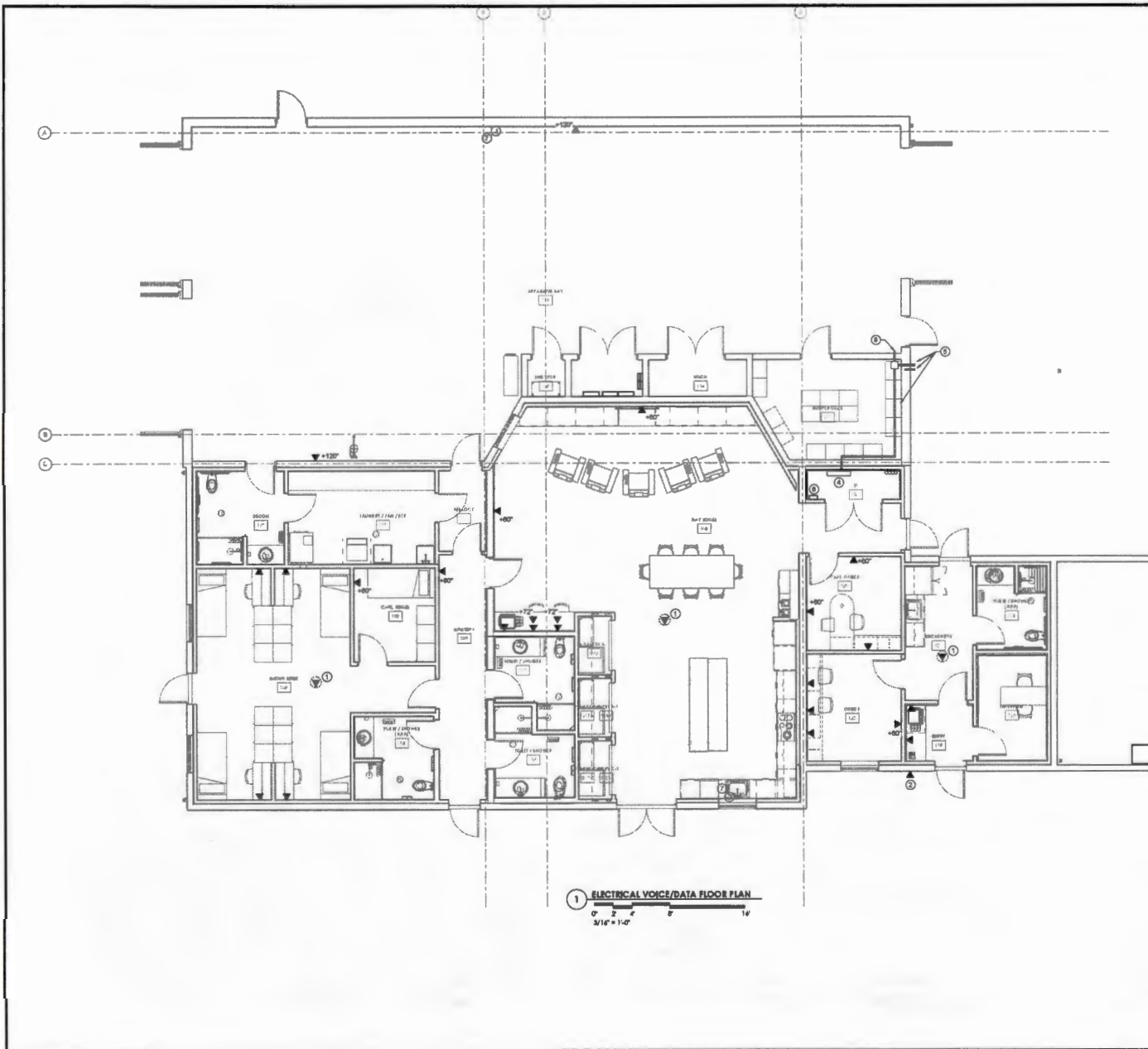
**BID SET**











- GENERAL NOTES**
- ALL CABLE RUND SHALL BE FULLY SUPPORTED FROM THE BUILDING STRUCTURE.
  - COORDINATE ALL MOUNTING HEIGHTS FOR DEVICES WITH ARCHITECTURAL ELEVATIONS AND CASEWORK DETAILS.
  - ANY REQUIRED CONDUIT SHALL BE AT MINIMUM 1" DIAMETER.
  - SCB SYSTEM SHALL UTILIZE CAT6 UTP 25 AWG CABLES FOR HORIZONTAL DISTRIBUTION UNLESS NOTED OTHERWISE.
  - PATCH CABLES SHALL MEET OR EXCEED THE PERFORMANCE REQUIREMENTS OF THE HORIZONTAL CABLE TO WHICH THEY CONNECT.
  - TERMINATE NETWORK CABLES FOR SECURITY CAMERAS, WIRELESS ACCESS POINTS (WAP) AND POE DEVICES IN A SURFACE-MOUNTED CONNECTOR.
  - ALL CABLES AND SUPPORTS ABOVE THE DROP CEILING SHALL BE PLUMB AND FASTENED.
  - INFORMATION PROVIDED IN SCHEDULE IS FOR REFERENCE. BIDDER IS RESPONSIBLE FOR VERIFYING EXACT QUANTITY AND LOCATION OF ALL EQUIPMENT. REFER TO FLOOR PLAN FOR EXACT QUANTITY.
  - EACH DATA BYPASS LOCATION AT A DESK SHALL HAVE TWO (2) CAT 6 CABLES.
  - PROVIDE FLOOR MOUNTED RACK IN IT CLOSET.
  - PROVIDE LADDER BACK ACROSS ENTIRE BACK OF IT CLOSET.
  - PROVIDE NETWORK SWITCH WITHIN RACK IN IT CLOSET AND TERMINATE ALL CABLES IN SWITCH PER SPECIFICATIONS.

- KEY NOTES**
- 1 RECEPTACLE AND COMMUNICATION FOR WIRELESS SYSTEM (WAP), COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 2 PROVIDE EXTERIOR PHONE INSTALLED WITH A RECESSED WEATHERPROOF BOX. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 3 RECEPTACLE AND COMMUNICATION FOR WIRELESS SYSTEM (WAP), COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 4 ENCLOSURE FOR FIRE STATION ALERT EQUIPMENT.
  - 5 PROVIDE (1) 1.5" AND (1) 3/4" CONDUIT WITH PULLSTRING FOR ANTENNA AND GROUND BACK TO IT ROOM. 3/4" DOWN FROM ROOF LINE. GROUND CHASE SHALL BE INSIDE CMU AND EXT WALL 6" BELOW PFE FOR CABLE CONNECTION TO GROUND ROD.
  - 6 PROVIDE WILSON SIGNAL BOOSTER OFFICE 300 SIGNAL BOOSTER OR EQUAL WITH OUTDOOR ANTENNA. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 7 PROVIDE SIGNAL BOOSTER INDOOR ANTENNA. COORDINATE LOCATION AND REQUIREMENTS WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.
  - 8 PROVIDE 1" CONDUIT FOR TURN OUT TIMER, COORDINATE LOCATION WITH SYSTEM PROVIDER PRIOR TO ROUGH IN.

1 ELECTRICAL VOICE/DATA FLOOR PLAN  
 0 2 4 8 16  
 3/16" = 1'-0"

**PASSERO**  
 engineering architecture

**PROMUS**

CLIENT:  
 ST. JOHN'S COUNTY  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

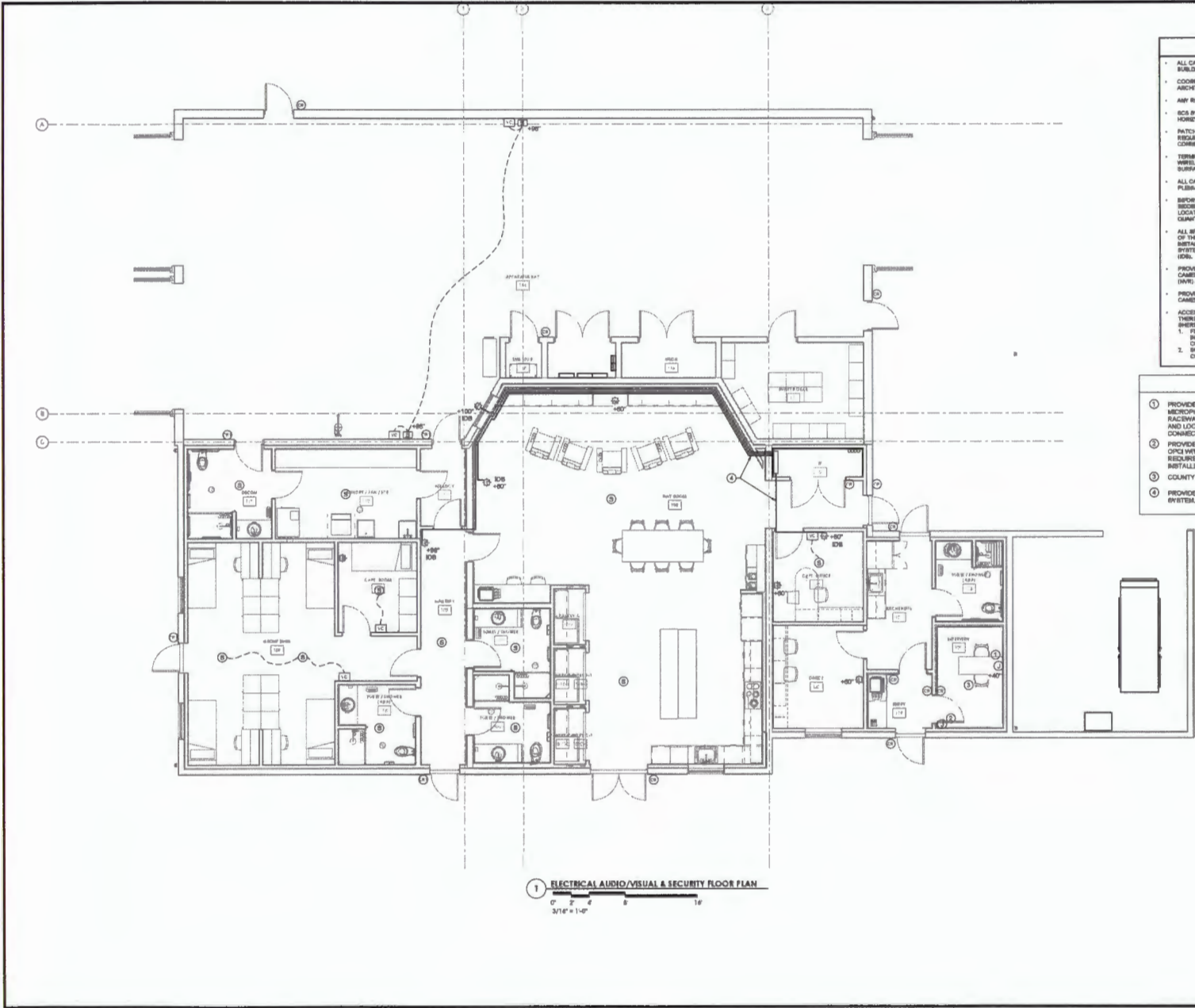
**PROMUS INC.**  
 4000 LAWRENCE  
 MIAMI, FLORIDA 33137  
 PROJECT MANAGER: MICHAEL J. BROWN  
 PROJECT ARCHITECT: MICHAEL J. BROWN

NO.	DATE	BY	DESCRIPTION
1	11/25/24	MLB/SAB	

EXHIBIT THESE USE OF THESE DRAWINGS IS BY APPLICANT OR BY OTHERS WITHOUT THE WRITTEN CONSENT OF PASSERO ENGINEERING ARCHITECTURE.

**ELECTRICAL VOICE/DATA FLOOR PLAN**  
 4630 MELANIE STREET  
 SJC - FLAGLER ESTATES FIRE STATION  
 TOWN/CITY: HAITHAMS  
 COUNTY: SJC STATE: FLORIDA  
 PROJECT NO: 20213261.0012  
 DRAWING NO: E-901  
 DATE: NOVEMBER 15, 2024

**BID SET**



- GENERAL NOTES**
- ALL CABLE RIMS SHALL BE FULLY SUPPORTED FROM THE BUILDING STRUCTURE.
  - COORDINATE ALL MOUNTING HEIGHTS FOR DEVICES WITH ARCHITECTURAL ELEVATIONS AND CASEWORK DETAILS.
  - ANY REQUIRED CONDUIT SHALL BE AT MINIMUM 1" DIAMETER.
  - RCS SYSTEM SHALL UTILIZE CAT6 UTP 25 AWG CABLES FOR HORIZONTAL DISTRIBUTION UNLESS NOTED OTHERWISE.
  - PATCH CABLES SHALL MEET OR EXCEED THE PERFORMANCE REQUIREMENTS OF THE HORIZONTAL CABLES TO WHICH THEY CONNECT.
  - TERMINATE NETWORK CABLES FOR SECURITY CAMERAS. WIRELESS ACCESS POINTS (WAP) AND POE DEVICES IN A SURFACE-MOUNTED CONNECTOR.
  - ALL CABLES AND SUPPORTS ABOVE THE DROP CEILING SHALL BE PLUMB RATED.
  - INFORMATION PROVIDED IS SCHEDULED IS FOR REFERENCE. DESIGNER IS RESPONSIBLE FOR VERIFYING EXACT QUANTITY AND LOCATION OF ALL EQUIPMENT. REFER TO FLOOR PLAN FOR EXACT QUANTITY.
  - ALL SPEAKERS AND VOLUME CONTROL (VOLUME) LOCATIONS ARE PART OF THE FIRE STATION ALERTING (FSA) SYSTEM. PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM BY WHICH ALERT SYSTEM SHALL INCLUDE FOUR (4) INCIDENT DISPLAY BOARDS (IDB).
  - PROVIDE AND INSTALL COMPLETE FUNCTIONAL CCTV VIDEO CAMERA SYSTEM BY GENETIC WITH NETWORK VIDEO RECORDED (NVR) AND 1 TB HDD STORAGE CAPACITY EQUIVARIANT TO 12 TB.
  - PROVIDE SIX (6) EXTERIOR 180 DEGREE WALL MOUNTED CCTV CAMERAS AROUND BUILDING.
  - ACCESS CONTROL SYSTEM FOR ALL CARD READER DOORS. THESE SHALL BE SEPARATE SYSTEM FOR FIRE STATION AND SHERIFF'S OFFICE.
    - FIRE STATION SYSTEM SHALL BE GENETIC AND SHALL INCLUDE CCTV SYSTEM. LOCATE ALL NETWORK COMPONENTS WITHIN IT Closets.
    - SHERIFF'S SYSTEM SHALL BE ANULLO. LOCATE ALL NETWORK COMPONENTS WITHIN SHERIFF'S OFFICE.

- KEY NOTES**
- PROVIDE ELECTRICAL CONNECTION TO HIGH SENSITIVITY MICROPHONE. PROVIDE JUNCTION BOX WITH BLANK PLATE AND RACEWAY TO ABOVE CEILING. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH SYSTEM PROVIDER AND INSTALLER AND CONNECT FOR OPERATION.
  - PROVIDE ELECTRICAL CONNECTION TO DISCREET CEILING CAMERA (CNC) WITH 1" STUBBED TO HALLWAY CEILING. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH SYSTEM PROVIDER AND INSTALLER PRIOR TO ROUGH IN.
  - COUNTY TO PROVIDE INTERVIEW ROOM EQUIPMENT.
  - PROVIDE 1" CONDUIT WITH PULLSTRING FOR INCIDENT DISPLAY SYSTEM.

**1 ELECTRICAL AUDIO/VISUAL & SECURITY FLOOR PLAN**  
3/16" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
4201 L.L. ROAD  
DALE MARIANA, FL 32117  
PROJECT: ARCHITECT: Brandon Brink  
PROJECT BY: OWNER: Brandon Brink  
DESIGNER: Brandon Brink

NO.	DATE	BY	DESCRIPTION
	11/15/24		Bid Set

UNLESS OTHERWISE NOTED, ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE ALARM CODE (NFPA 72), AND ALL OTHER APPLICABLE CODES AND REGULATIONS.

**ELECTRICAL AUDIO/VISUAL & SECURITY PLAN**  
**4630 MELANIE STREET**  
SXC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: HASTINGS  
COUNTY: SXC STATE: FLORIDA  
PROJECT NO.: 20213261.0012  
DATE: E-902

**BID SET**  
NOVEMBER 15, 2024

**GENERAL NOTES:**

- BASE OF DESIGN: DISCOVERY BUILDING OR APPROVED EQUAL
- PROVIDE SMOOTH CONTINUOUS LEVEL FROM FLOOR SLAS TO APRON TYP.
- DIMENSIONS ARE TO OUTSIDE FACE OF STEEL AT BUILDING PARAMETER
- PROVIDE MIN. 3/4" WATER STOP RECESSED CONCRETE SLAS EDGE TO RECEIVE METAL PANELS AT PER MFR. SPECIFICATIONS AROUND BUILDING PERIMETER AS REQUIRED. DO NOT EMBED ALUMINUM IN CONCRETE

**CODE LEGEND**

FE1	24-GAUGE R/WALL BRACKET APPARATUS BATT
ES1	ES1 SIGN

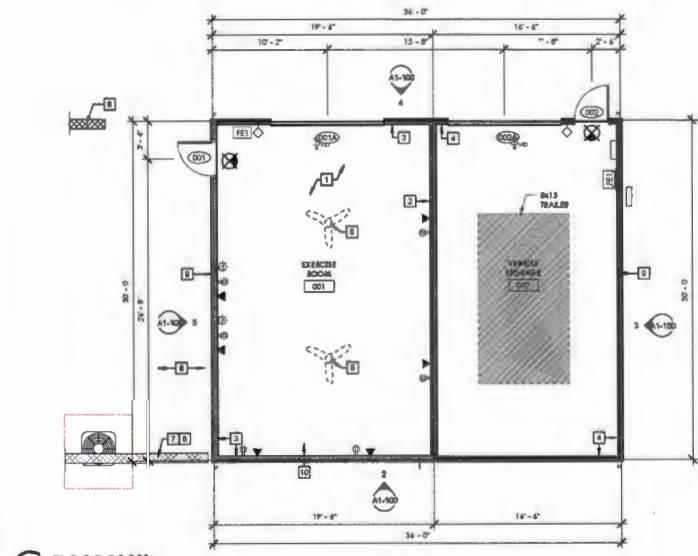
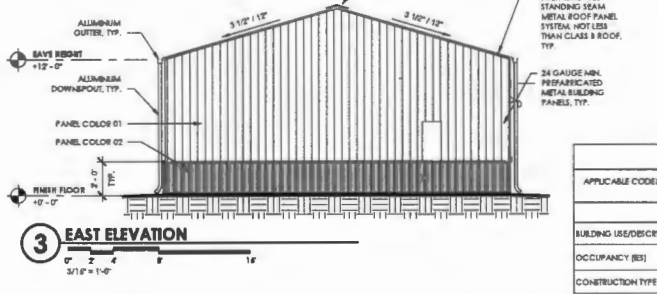
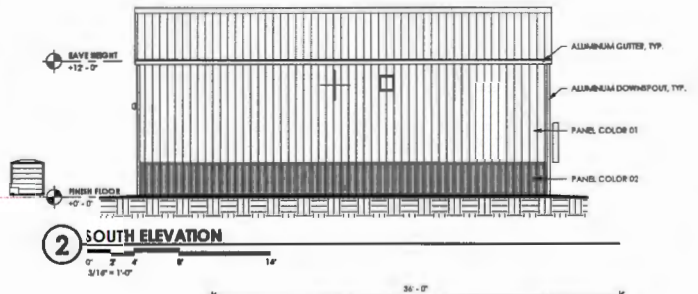
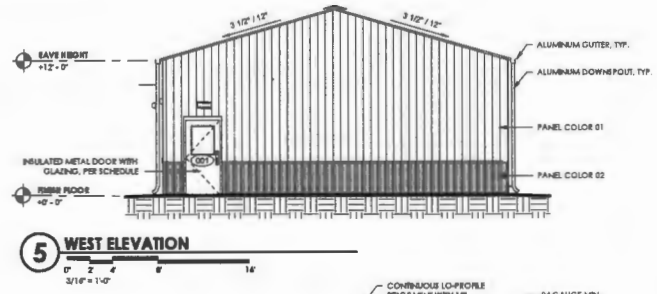
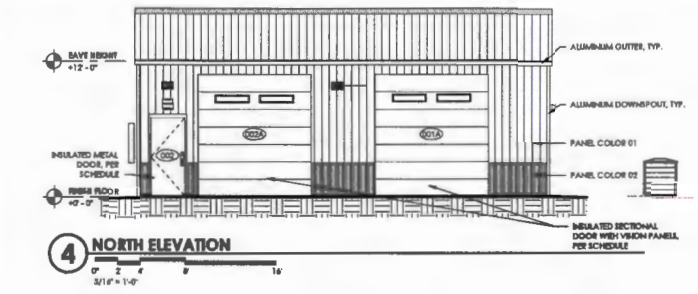
**KEYNOTES - FLOOR PLAN**

- 1 DISCONTINUED SLAS PER STRUCT.
- 2 4" METAL STUD WITH SIP GYP. BD. @ EACH SIDE & 8-1/2" FIBERGLASS BATT INSULATION, SEALANT AT EACH SIDE & FLOOR & ROOF.
- 3 FINISH INTERIOR OF PREFABRICATED BUILDING AT EXERCISE ROOMSIDE WITH 9/16" DYE. SOL. AND EXPANSION. TRIMMING TRIMMED (REQUIRED)
- 4 INTERIOR OF PREFABRICATED BUILDING NOT TO BE FINISHED AT VEHICLE STORAGE SIDE.
- 5 EXERCISE ROOM SIDE BRACKET BRACKETING.
- 6 STORAGE BUILDING TO BE APPROX. 20' FROM SHERIFF BUILDING - COORDINATE WITH CIVIL DRAWINGS
- 7 CHIMNEY WALL, 30' FROM BASE, TO BE REMOVED TO ALLOW STORAGE BUILDING AS CLOSE TO CHIMNEY WALL AS POSSIBLE - COORDINATE WITH ARCHITECT.
- 8 CIVIL WALL IS PART OF BASE ESD.
- 9 PROVIDE BATT INSULATION AS NECESSARY TO ACHIEVE U-0.35 AT EXTERIOR WALLS, TYP.
- 10 PROVIDE BATT INSULATION NECESSARY TO ACHIEVE U-0.35 AT ROOF ASSEMBLY, TYP.

**CODE REVIEW SUMMARY**

APPLICABLE CODES: 2023 FLORIDA BUILDING CODE, FLORIDA FIRE PREVENTION CODE, & FLORIDA BUILDING CODE ACCESSIBILITY 2023

BUILDING USE/DESCRIPTION	BUILDING CODE	
	REQUIRED	PROVIDED
OCCUPANCY (IES)	8CHYS CH. 3	TRAINING/SKILL DEVELOPMENT (S), STORAGE (S-2)
CONSTRUCTION TYPE	8CHYS TABLE 601	S4
# OF STORES/BUILDING HEIGHT	8CHYS SEC. 804	PROVIDED: 1 STORY / HEIGHT FIRE ELEVATION ALLOWED: 4 STORES / 75 FT.
ALLOWABLE AREA	8CHYS SEC. 506	92,000 SF
PROJECT AREA (TOTAL)	8CHYS SEC. 506	1,043 SF
TOTAL NUMBER OF OCCUPANTS	8CHYS SEC. 1004	13A. THEREFORE 14 OCCUPANTS
EXES: NUMBER AND SIZE (INCHES)	8CHYS SEC. 1005 & 1006	1 @ 36"      2 @ 36"
MAX. TRAVEL DISTANCE	8CHYS SEC. 1017	105 FT      41 FT
AUTOMATIC SPRINKLERS	8CHYS SEC. 903	HPPA 13      HPPA 13
SMOKE AND FIRE DETECTION	8CHYS SEC. 907.2	REQUIRED      PROVIDED
FIRE ALARMS	8CHYS SEC. 907.2	NOT REQUIRED      NOT PROVIDED



**1 FLOOR PLAN**  
3/16" = 1'-0"

**ROOM FINISH SCHEDULE**

ROOM #	ROOM NAME	FLOOR	BASE	WALLS	CILING	NOTES
001	EXERCISE ROOM	FINISH AS SPECIFIED: POLISHED CONCRETE, POLISHED, 200 GRIT	EXPOSED	GLAZED	EXP	
002	VEHICLE STORAGE	SEALED CONCRETE FLOORING: PRO-DOCO, JACOPO TRIM-FINISH W/FORMULA ONE URETHAN DEWAXER AND FORMULA ONE GUARD, COLOR BLACK	N/A	EXP	EXP	PROVIDE GWS AND PAINT AT WALL BETWEEN EXERCISE AND STORAGE

**DOOR SCHEDULE**

DOOR #	DOOR MFR.	DOOR MFR.	DOOR		FRAME		DOOR TYPE	DOOR FINISH	DOOR #	REMARKS											
			# OF LEAVES	NEEDLES	HEIGHT	WIDTH					FRAME TYPE	FRAME FINISH									
001A	STL	FACTORY	1	1 1/2"	10'-0"	10'-10"	-	-	X	N/A	FT	-	-	-	-	-	-	-	-	-	-
002A	STL	FACTORY	1	1 1/2"	10'-0"	10'-10"	-	-	X	N/A	FT	-	-	-	-	-	-	-	-	-	-

\*NOTE: COORDINATE WITH HARDWARE CONSULTANT

**BID SET**

CLIENT:  
ST. JOHNS FIRE & RESCUE  
4040 Lawis Speedway  
St. Augustine, Florida 32084

**Passero Associates**

NO.	DATE	BY	DESCRIPTION

**STORAGE BUILDING PLANS & ELEVATIONS**

4630 MELANIE STREET  
FLAGLER ESTATES SHERIFF STORAGE  
TOWNSHIP: Hastings  
COUNTY: St. Johns      STATE: Florida

20213261.0012

A1-100

NOVEMBER 15, 2024

**METAL BUILDING SYSTEMS NOTES:**

- DESIGN, FABRICATION AND ERECTION OF THE PRE-ENGINEERED METAL BUILDING (PEMB) SYSTEM SHALL BE SUBJECT TO WINDLIFT, DOWN PEAK/THERMAL, WIND, GRAVITY, STRUCTURAL MOVEMENT AND SEISMIC ACTION WITHOUT EXCEEDING ALLOWABLE STRESSES AND SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING:
  - METAL BUILDING MANUFACTURER'S ASSOCIATION (MBMA) "METAL BUILDING SYSTEM MANUAL" (LATEST EDITION)
  - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" AND STEEL DESIGN GUIDE SERIES 3 "SERVICABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS", UNO.
  - IRON AND STEEL INSTITUTE (ISI) "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" (LATEST EDITION)
  - AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE STEEL AWS D1.1/D1.1M" (LATEST EDITION)
  - DEFORMATIONS OF THE PRE-ENGINEERED BUILDING INCLUDING BUT NOT LIMITED TO LATERAL DRIFT, RACKING OF FRAME, AND HORIZONTAL AND OR VERTICAL DEFLECTION OF STRUCTURAL ELEMENTS, CLADDING, OR OTHER SUPPORTED ELEMENTS, IS TO BE LIMITED BY THE RECOMMENDATIONS SET FORTH IN AISC'S STEEL DESIGN GUIDE SERIES 3 "SERVICABILITY DESIGN CONSIDERATIONS FOR LOW-RISE BUILDINGS" AND AS FOLLOWS:
    - DRIFT OF MAIN FRAMES AT EAVE HEIGHT, UNO: H/100
    - DRIFT OF MAIN FRAMES WITH MASONRY/CONCRETE EXTERIOR WALLS: H/240
    - HORIZONTAL DEFLECTION OF GIRTS SUPPORTING METAL SIDING: L/180
    - VERTICAL DEFLECTION OF MAIN FRAME: (L/360 RW) & L/180 (TOTAL)
    - VERTICAL DEFLECTION OF PURLINS: L/360 (LEVEL & LINE TOTAL)
    - LATERAL MOVEMENT OF ELEMENTS SUPPORTING DRYWALL PARTITIONS (BY PARTITION HT): H/500
    - HORIZONTAL DEFLECTION OF GIRTS SUPPORTING MASONRY WALLS: L/600
- WIND AND SEISMIC FORCES USED FOR THE COMPARISON OF MEMBER STRESSES ARE TO BE BASED ON THE LATERAL LOAD DESIGN CRITERIA LISTED IN THE DESIGN CRITERIA ON SHEET S-002.
- CONTRACTOR IS TO ENGAGE AN EXPERIENCED INSTALLER TO DIRECT THE PRE-ENGINEERED METAL BUILDING WHO IS EXPERIENCED IN THE ERECTION OF METAL BUILDINGS SIMILAR TO THAT REQUIRED FOR THE PROJECT AND WHO IS CERTIFIED IN WRITING BY THE METAL BUILDING SYSTEM MANUFACTURER AS QUALIFIED FOR THE ERECTION OF THE MANUFACTURER'S PRODUCTS.
  - FABRICATE FRAMING COMPONENTS IN THE SHOP TO THE GREATEST EXTENT POSSIBLE. IN GENERAL, SHOP WELD AND FIELD BOLT CONNECTIONS.
  - EXERCISE CARE IN DELIVERING, UNLOADING, STORING AND ERECTING BUILDING MEMBERS, WALL AND ROOF COVERING PANELS AND OTHER BUILDING COMPONENTS TO PREVENT BENDING, WARPING, TIPPING AND SURFACE DAMAGE.
  - ERECT FRAMING TRUE TO LINE, LEVEL AND PLUMB. LEVEL BASE PLATES TO A TRUE PLANE WITH FULL BEARING TO SUPPORTING STRUCTURE. USE A NON-BENDING GROUT TO OBTAIN UNIFORM BEARING AND TO MAINTAIN LEVEL BASE LINE ELEVATION.
  - PROVIDE LATERAL LOAD RESISTING SYSTEM AS REQUIRED TO RESIST THE INDICATED WIND AND SEISMIC LOADS IN ROOF AND SIDE WALLS WHERE OVERHEAD DOORS INTERFERE WITH DIAGONAL BRACING. PROVIDE STRUCTURAL WIND FRAMES. PROVIDE SAG RODS AS REQUIRED TO MAINTAIN VERTICAL ALIGNMENT OF WALL GIRTS. REFERENCE THE ARCHITECTURAL AND STRUCTURAL PLAN DRAWINGS FOR PERMITS BRACING AND FRAME LOCATIONS.
  - PROVIDE FRAMED DOOR AND WINDOW OPENINGS OF PROPER DESIGN AND SIZE TO ACCOMMODATE FINISHED DIMENSIONS TO THE BUILDING STRUCTURE.
  - THE FOUNDATION AND ANCHOR ROD DESIGN ON THESE CONTRACT DRAWINGS IS PRELIMINARY AND BASED UPON ASSUMED COLUMN BASE REACTIONS CALCULATED BY A STRUCTURAL ENGINEER. THESE REACTIONS ARE INDICATED BY PERMITS COLUMN BASE REACTIONS SCHEDULE ON SHEET S-004. UPON FINAL BUILDING DESIGN, THE ACTUAL COLUMN BASE REACTIONS ARE TO BE COMPARED TO THE PRELIMINARY FOUNDATION AND ANCHOR ROD DESIGN PROVIDED BY CID AND A REGISTERED PROFESSIONAL ENGINEER MUST BE EMPLOYED BY THE GENERAL CONTRACTOR TO COMPLETE A FOUNDATION DESIGN BASED UPON THE ACTUAL REACTIONS.
    - COLUMN BASES ARE TO BE FINISHED. FROD BASES ARE NOT PERMITTED.
- DESIGN THE PRE-ENGINEERED METAL BUILDING TO PROVIDE LATERAL SUPPORT FOR THE TOP OF ALL MASONRY WALLS. LATERAL SUPPORT SHALL BE IN THE FORM OF A GIRT, SPANDREL BEAM OR OTHER APPROVED MEANS. THE TOP OF THE MASONRY WALLS SHALL BE BOLTED TO THE LATERAL SUPPORT. THE LATERAL SUPPORT SHALL BE CLIPPED TO THE MAIN FRAME COLUMNS WITH VERTICALLY SLOTTED CONNECTIONS.
- CONTRACTORS TO COORDINATE WITH THE PEMB MANUFACTURER AND SUBCONTRACTORS TO PROVIDE SUPPORT FOR ALL SUSPENDED EQUIPMENT, PIPING, DUCTWORK AND UTILITIES IDENTIFIED ON THE DRAWINGS OR OTHERWISE NOTED OR REQUIRED.

**FOUNDATION LEGEND**

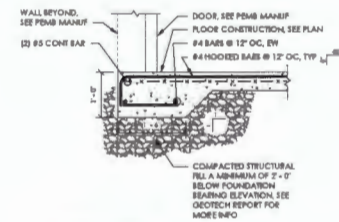
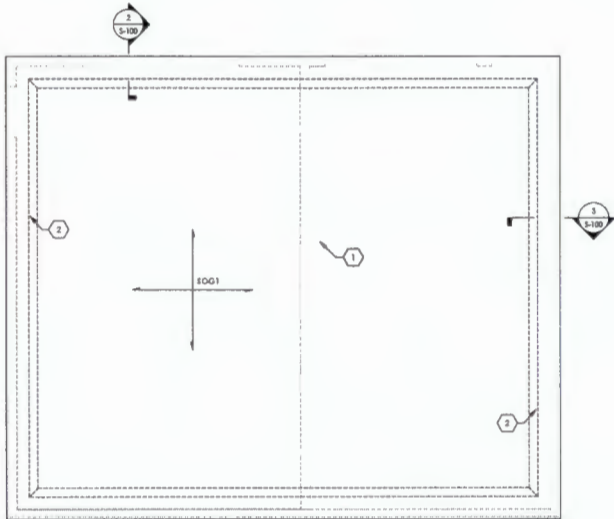


**FOUNDATION PLAN NOTES**

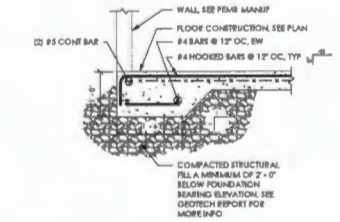
- SEE SHEET S-001 THROUGH S-003 FOR GENERAL NOTES, DESIGN CRITERIA, SCHEDULES, AND LEGENDS.
- SEE SHEET S-005 SERIES FOR TYPICAL DETAILS.
- FINISH FLOOR REFERENCE ELEVATION = 0'-0" = TOP OF SLAB. REFER TO CIVIL DRAWINGS FOR SITE SPECIFIC ELEVATIONS ABOVE SEA LEVEL.
- COORDINATE DOOR WIDTHS AND LOCATING DIMENSIONS WITH ARCH.
- COORDINATE WITH CIVIL, ARCH AND MEP DRAWINGS ON ANY REQUIRED PENETRATIONS THROUGH FOUNDATION WALLS OR FOOTINGS.

**STORAGE BUILDING FOUNDATION PLAN KEYNOTES**

- PEMB WALL. SEE PEMB DRAWINGS.
- HALFINCHED SLAB. SEE SECTION.



**2 FOUNDATION SECTION**  
3/4" = 1'-0"



**3 FOUNDATION SECTION**  
3/4" = 1'-0"

**1 STORAGE BUILDING FOUNDATION/SLAB PLAN**  
1/4" = 1'-0"

CLIENT:  
ST. JOHN'S COUNTY  
4040 Lewis Speedway  
St. Augustine, FL 32085

**Passero Associates**

PROJECT NUMBER	DATE	BY	DESCRIPTION

**STORAGE BUILDING PLANS AND DETAILS**

4630 MELANIE STREET  
SJC - FLAGLER ESTATES FIRE STATION  
TOWN/CITY: Hastings  
COUNTY: SJC STATE: Florida  
PROJECT NO: 20213261.0012  
SHEET NO: S-100  
DATE: NOVEMBER 15, 2024

**BID SET**



AIR HANDLING UNIT SCHEDULE														
MARK	MANUFACTURER	MODEL	NOMINAL COOLING CAPACITY (TONS)	TOTAL COOLING CAPACITY (TONS)	SEMI-CONDENSING COOLING CAPACITY (TONS)	SUPPLY AIR CFM	OUTSIDE AIR CFM	APPROX. SUPPLY AIR CFM	ELECTRIC MOTOR HP	VOLTAGE PHASE (V)	MAXIMUM AMP	WEIGHT (LBS)	DISCREETIONARY LOADS (BTU)	NOTES
2424	DOODMAN	AMPHYSHT4	3.2	34.8	13.2	466	131	5.2	0.2	208Y	35.550	117	4625-13	1-11

HEAT PUMP SCHEDULE														
MARK	MANUFACTURER	MODEL	NOMINAL TONNAGE	TOTAL TONNAGE	SEMI-CONDENSING TONNAGE	HEATING & TYP. AIR CFM	HEATING & TYP. SUPPLY AIR CFM	HEATING & TYP. CAPACITY STAGES	PER MINUTE HP	VOLTAGE PHASE (V)	MAXIMUM AMP	WEIGHT (LBS)	DISCREETIONARY LOADS (BTU)	NOTES
HP4	DOODMAN	HEATPUMP2	1.8	18.8	14.4	117.9	15.2	1	1.5	208Y	3.651	321	24000	1-11

EXHAUST FAN SCHEDULE																	
MARK	MANUFACTURER	MODEL	SEWER SERVICE	COMPL.	TOTAL EXHAUST CFM	APPROX. ESP (IN WG)	RODS	EXHAUST FAN HP	SPW	DRIVE TYPE	ROOF OPENING IN.	CONTROL	CONTROL SET POINT (°F)	VOLTAGE PHASE (V)	WEIGHT (LBS)	DISCREETIONARY LOADS (BTU)	NOTES
BF4	GREENHECK	SE-S-440V	SEWER STORAGE	BASE WALL	330	0.35	0.00	1/2HP	-	DIRECT	-	T-STAT	-	208Y	41	12612/18	1-11

- NOTES:**
- APPROVED EQUAL MANUFACTURER: COOK, FISH, ACME
  - WALL MOUNTED PROPPELLER EXHAUST FAN WITH INLET GUARD
  - NON-OVERLOADING, SINGLE-WIDTH, SINGLE-SHAFT UTILITY VENT SET WITH VERTICAL DISCHARGE
  - PROVIDE FACTORY MOUNTED DISCONNECT SWITCH
  - DISCONNECT TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR
  - PROVIDE BUSHINGS AND GRANTY BACKSTOP DAMPER
  - PROVIDE INTERNAL FACTORY MOUNTED SPEED CONTROLLER FOR DIRECT DRIVE FAN
  - PROVIDE BILET AND BRONZE DUCT CONNECTION FLANGES
  - PROVIDE WEATHER COVER AND RUBBER-SEGMENT VIBRATION ISOLATORS
  - PROVIDE WALL BOX WITH GRAVITY DISCHARGE AND GRAB BILET GUARD SCREEN
  - PROVIDE LINE VOLTAGE THERMOSTAT TO CLOSE ON TEMPERATURE RISE ROBERTSHAW PERFECTREME MODEL P590 OR EQUAL.
- GENERAL FAN NOTES:**
- MOTOR STARTERS: DISCONNECTS BY MFG FACTORY PROVIDED AND ALL EQUIPMENT NORMAL POWER PROVIDED BY ELECTRICAL CONTRACTOR.
  - ALL CONTINUOUS-DUTY MOTORS SHALL BE PROVIDED WITH OVERLOAD PROTECTION ACCORDING TO THE NATIONAL ELECTRICAL CODE PAGE 430-52.
  - FIELD ADJUST OPERATOR WITH STRUCTURE.

AIR DISTRIBUTION SCHEDULE									
MARK	MODEL	FACE SIZE	FACE AREA	DIFFUSION	FACE	PLUMB	ACCESS CRITERIA	NOTES	
BD	ESD	14x10	138	ALL-WEATHER	ROOFWALL	SEE NOTE 3	3	1, 2, 3, 4, 5	
BD4	ESPL	14x10	138	ALL-WEATHER	ROOFWALL	SEE NOTE 3	3	1, 2, 4, 5, 7, 8	

- NOTES:**
- APPROVED EQUAL MANUFACTURER: PRICE, CARRIES, METALARE, WAGOR
  - FINISH COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL
  - DOUBLE DEFLECTION GENERAL SUPPLY GRILLE
  - REMOVABLE RETURN GRILLE
  - PROVIDE STEEL COATED BLADE VOLUME DAMPER
  - PROVIDE WITH AIR SCOOP DAMPER, ASD.
  - FRONT BLADES PARALLEL TO SCOP DIRECTION
  - HORIZONTAL BLADES SET AT 2° ANGLE
  - MATCH RADII OF ROUND DUCT TO RADII OF AIR DEVICE.

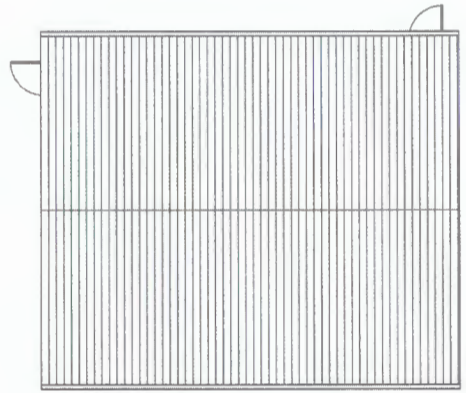
LOUVER SCHEDULE										
MARK	BURMAN MODEL	SEWER SERVICE	FACE W x H	FACE AREA	FACE W x H	FACE AREA	FACE	PLUMB	ACCESS CRITERIA	NOTES
BL4	BL785	SEWER STORAGE	7'-2" x 7'-2"	4.17	13'-0" x 7'-0"	93	7'-0"	7'-0"	3	1, 2
BL2	BL785	SEWER STORAGE	7'-2" x 7'-2"	4.17	13'-0" x 7'-0"	93	7'-0"	7'-0"	3	1, 2

- NOTES:**
- PROVIDE BRID SCREENS
  - PROVIDE BRASS FINISH, FINISH COLOR TO MATCH BLDG EXTERIOR OR AS DIRECTED BY ARCHITECT, PROVIDE COLOR SAMPLES FOR APPROVAL
  - PROVIDE DRAMMABLE BLADES
  - COORDINATE FINISH LOCATION AND ELEVATION WITH ARCHITECT
  - PROVIDE ULTRASONIC IMPACT RESISTANT APPROVED LOUVER, LOUVER MUST COMPLY WITH ANCA 554.

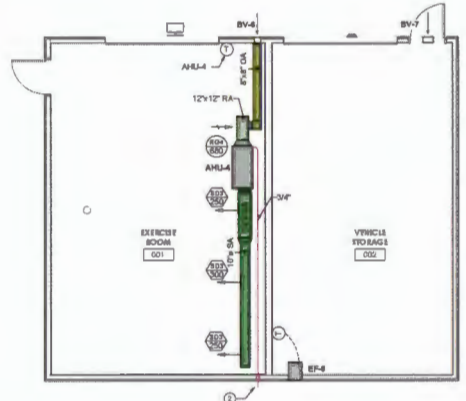
- KEY NOTES**
- LOCATE HP-4 IN MECHANICAL YARD.
  - INSTALL CONDENSATE LINE ABOVE GRADE WITH AIR GAP OVER LANDSCAPING.

DUCT SCHEDULE		
SIZE (IN)	AREA (SQ IN)	FLOW (CFM)
6" x 6"	36	50 - 125
8" x 8"	64	130 - 185
10" x 10"	100	200 - 330
12" x 12"	144	330 - 450
14" x 14"	196	450 - 700
16" x 16"	256	700 - 1100
18" x 18"	324	1100 - 1600
20" x 20"	400	1600 - 2500

- NOTES:**
- DUCT SHALL BE PER TABLE UNLESS NOTED OTHERWISE.
  - RETURN AIR FLEX DUCT SHALL BE SIZED BASED ON SUPPLY AIR IN SAME ROOM.



**2 MECHANICAL ROOF PLAN**



**1 MECHANICAL FLOOR PLAN**



SP-010

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

ONE L&L ROAD  
BALL BEYOND, GA 30718  
PROJECT: ST. JOHN'S FIRE & RESCUE  
PROJECT # 2021-0012

NO.	DATE	BY	DESCRIPTION
1	11/15/2024	BLS	REV 001

**MECHANICAL FLOOR PLANS AND SCHEDULES**

4630 MELANIE STREET

FLAGLER ESTATES SHERIFF STORAGE

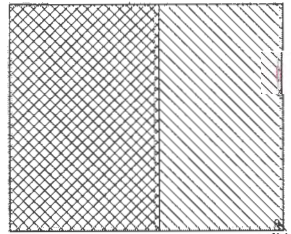
TOWN/CITY: Hawthorn  
COUNTY: SJX STATE: FLORIDA

PROJECT NUMBER: 20213261.0012

PROJECT MANAGER: BRANDON SHARP  
B-SHA: bsharp@promusinc.com

NOVEMBER 15, 2024

**ADDENDUM 3**



PROPOSED 8" FIRE SPRINKLER RISER.

8" FIRE SPRINKLER LINE BELOW GRADE TO WELL. SEE CIVIL PLANS FOR CONTINUATION.

HAZARD CLASSIFICATION	
	LIGHT HAZARD 0.30 GPM / SQ. FT. 1,500 SQ. FT. REMOTE AREA 225 SQ. FT. MAX COVERAGE 15'0" MAX SPACING HERS ALLOWANCE: 100 GPM
	ORDINARY HAZARD, GROUP 1 0.11 GPM / SQ. FT. 1,100 SQ. FT. REMOTE AREA 150 SQ. FT. MAX COVERAGE 15'0" MAX SPACING HERS ALLOWANCE: 250 GPM

1 Fire Sprinkler Plan - 1st Floor  
SCALE 1/8" = 1'-0"

**FIRE SPRINKLER SPECIFICATIONS**

- THE CONTRACTOR SHALL PROVIDE A COMPLETE FIRE SPRINKLER INSTALLATION FOR THE PROJECT AS INDICATED IN THE DESIGN DOCUMENTS. THE SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13, THE OWNER'S INSURANCE COMPANY IF ANY, THE STATE AND/OR LOCAL FIRE MARSHAL, THE LOCAL BUILDING DEPARTMENT AND OTHER APPLICABLE RULES AND REGULATIONS.
- THE DESIGN DOCUMENTS ARE NOT AND SHALL NOT BE CONSIDERED SHOP DRAWINGS NOR INSTALLATION DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS AND, IF APPLICABLE, HYDRAULIC CALCULATIONS FOR REVIEW BY THE ARCHITECT/OWNER PRIOR TO COMMENCING ANY FIELD WORK. AS WELL, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND, IF APPLICABLE, HYDRAULIC CALCULATIONS TO THE LOCAL BUILDING DEPARTMENT OR AUTHORITY HAVING JURISDICTION AND OBTAIN ALL NECESSARY APPROVALS AND PERMITS FOR THE PROJECT.
- THE CONTRACTOR SHALL COORDINATE ALL FIRE SPRINKLER WORK WITH ALL OTHER CONSTRUCTION DISCIPLINES INCLUDING BUT NOT LIMITED TO HVAC, PLUMBING, ELECTRICAL, AND STRUCTURAL.
- THE SHOP DRAWINGS, INCLUDING HYDRAULIC CALCULATIONS, SHALL SHOW THE SIZES, TYPES, AND DIMENSIONAL LOCATIONS FOR ALL FIRE SPRINKLER MAINS, BRANCHES, AND EXISTING PIPING FOR THE WATER SUPPLY TO THE CONNECTION OF THE NEW SYSTEM.
- FIRE SPRINKLERS SHOWN REPRESENT THE MINIMUM REQUIREMENTS PER NFPA 13, CLASSIFICATION AS DESCRIBED ON PLANS.
- PIPING INSTALLATION
  - MAKE CHANGES IN SIZE OF PIPE WITH REDUCING FITTINGS. BUSHINGS ARE NOT PERMITTED.
  - CAP OPENINGS IN PIPING DURING CONSTRUCTION.
  - EXCUT HEADS FIT EXPOSED PIPES PASSING THROUGH FLOORS, WALL OR CEILING WITH ESCUTCHEONS.
  - PENETRATIONS THROUGH FIRE RATED WALLS SHOULD BE FILLED WITH A LISTED FIRE SEALANT IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND TO PROVIDE AT LEAST THE MINIMUM FIRE RATING OF THE WALL.
- ABOVE GRADE PIPE MATERIALS
  - SCHEDULE 40 ALLIRED AMERICAN BILT FOR PIPE SIZES 1" THROUGH 2".
  - SCHEDULE 10 FOR PIPE SIZES 3/4" AND LARGER.
  - SCHEDULE 80 FOR 1/2" OR 3/4" PIPE. SPIRES SHALL NOT EXCEED 4" IN LENGTH.
- BELOW GRADE PIPE MATERIALS
  - DUCTILE IRON.
  - CEMENT MORTAR LINING FOR DUCTILE IRON PIPE AND FITTINGS FOR WATER AWWA C104 POLYETHYLENE ENCASEMENT FOR DUCTILE IRON PIPE SYSTEMS AWWA C105 RUBBER-GASKET JOINTS FOR DUCTILE IRON PIPE PRESSURE PIPE AND FITTINGS AWWA C111 DUCTILE IRON PIPE, CENTRICALLY CASE FOR WATER AWWA C111.
- FITTINGS
  - SCHEDULE 40 ALLIRED AMERICAN BILT FOR PIPE SIZES 1" THROUGH 2".
  - BLACK CTS CLAMP 125 FOR 1" THROUGH 2".
  - CROCKETT TYPE FOR 3/4" AND LARGER.
- HANGERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND LOCAL AUTHORITIES. FINISHED SPRINKLER SHALL BE INSTALLED IN CEILING TILES.
- HEAD TYPES PER LOCATION / TEMPERATURE RATING 155°F.
  - SPRINKLED STRUCTURE CEILING SPRINKLER.
  - CUSTOMER HIGH RISE CONCEALED PENDENT (COVER TO MATCH CEILING TO BE WHITE).
  - ALL OTHER SPACES - SEEM RECESSED PENDENT.
- THE CONTRACTOR SHALL REMOVE ANY DEBRIS AND/OR REMAINING MATERIALS NOT USED IN THE INSTALLATION PRIOR TO PROJECT COMPLETION.
- THE CONTRACTOR SHALL BEAR ALL COSTS OF
  - PREPARING SHOP DRAWINGS AND DOCUMENTS.
  - SECURING PERMITS AND APPROVALS.
  - LABOR.
  - MATERIALS.
  - CLEAN UP/WASTE REMOVAL.

**SYSTEM DESIGN NOTES**

- AUTOMATIC WET SYSTEM
- PROVIDE AUTOMATIC WET FIRE SPRINKLER SYSTEM FOR ALL GENERAL OCCUPANCY AREAS.
  - SEE PLANS FOR PROPOSED RISER LOCATION.
  - PROVIDE TAMPERS SWITCHES FOR ALL VALVES ON SYSTEM. COORDINATE WITH FIRE ALARM CONTRACTOR SUCH THAT ACTIVATION OF TAMPER SWITCH WILL INITIATE A TRIGGER ALARM SIGNAL.
  - PROVIDE FLOW SWITCH AT MAIN RISER LOCATION. FIRE ALARM FLOW SHALL INITIATE GENERAL ALARM AND ALERT LOCAL FIRE DEPARTMENT OF ALARM EVENT.
  - SEE PLANS FOR HAZARD AREAS AND DENSITIES.
  - REFER TO CIVIL DOCUMENTS FOR HAD PIPING SPECIFICATIONS AND INSTALLATION DETAILS.
  - QUICK RESPONSE HEAD SHALL BE PERMITTED WHERE ALLOWED BY CODE.

**HANGER SCHEDULE**

NFPA 13 TABLE 4.8.2.1 MAXIMUM DISTANCE BETWEEN HANGERS (FT. - IN.)

NOMINAL PIPE SIZE	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"	8"
STEEL PIPE (EXCEPT THREADED LIGHT-WALL STEEL PIPE)	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHT-WALL STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A

NOTE: THERE SHALL BE NOT LESS THAN ONE HANGER FOR EACH SECTION OF PIPE, MIN. DIST. FROM ANY UPSTREAM HEAD TO HANGER = 3'.

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**

2021-10-15  
2021-10-15  
2021-10-15

NO.	DATE	BY	DESCRIPTION
002/024			Rev Set

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**FIRE SPRINKLER FLOOR PLAN**

4630 MELANIE STREET

FLAGLER ESTATES SHERIFF STORAGE

TOWNSHIP: HASTINGS

COUNTY: ST. AUGUSTINE STATE: FLORIDA

20213261.0012

A1 - FS-201

NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #925311  
4245 LAND ROAD  
HALL GROUND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@promus.us

**BID**





LIGHTING FIXTURE SCHEDULE										
MARK	DESCRIPTION	MODEL	LAMP	LUMENS	WATTAGE	COLOR TEMPERATURE	VOLTAGE	MOUNTING	NOTES	
J1	4' LED LINEAR DIMMABLE STRIP FIXTURE, Frosted Lens, Wide Dist., White Finish	JUNCTION BOX SERIES METALLUX 454LED L05 58SL LW UNV L840 CDT SERIES	LED	5 900	55 W	4000 K	120	Recess		

**GENERAL NOTES:**  
 1. ALL SUSPENDED LIGHT FIXTURE(S) SHALL BE MOUNTED WITH THREADED ROD. PROVIDE UNISTRUT AS REQUIRED FOR MOUNTING BETWEEN BAR JOISTS.

**NOTE:**  
 1. VERIFY EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS.  
 2. MOUNT FIXTURE AT HEIGHT AS INDICATED. COORDINATE WITH EQUIPMENT PRIOR TO ROUGH IN.

EMERGENCY LIGHTING FIXTURE SCHEDULE										
MARK	DESCRIPTION	MODEL	LAMP	LUMENS	WATTAGE	COLOR TEMPERATURE	VOLTAGE	MOUNTING	NOTES	
EN6	11" x 4 1/2" x 7 1/2" LED NORMAL / EMERGENCY FIXTURE WITH WET LOCATION RATING. PROVIDE WITH REMOTE POWER SOURCE.	DUAL-LITE PON SERIES						WALL SURFACE	1	
ED3	LED COMBINATION EXIT / EMERGENCY FIXTURE WITH RED LETTERING, WHITE FINISH, STANDARD MODEL, AND SELF-DIAGNOSTICS.	DUAL-LITE LT SERIES						CEILING / WALL		

**GENERAL NOTES:**  
 EMERGENCY FIXTURES INDICATED IN THIS SCHEDULE SHALL BE CAPABLE OF 90 MINUTE BATTERY BACK-UP OPERATION. UNIT EQUIPMENT FOR EMERGENCY ILLUMINATION SHALL BE PROVIDED WITH MINIMUM OF TWO (2) ILLUMINATION SOURCE SUCH THAT FAILURE OF SOURCE DOES NOT AFFECT THE OTHER PER NEC 708.16 (B).  
 • PROVIDE COMPATIBLE EMERGENCY BATTERY PACK WITHOUT LAMPS (DUAL-LITE LM SERIES OR EQUAL) FOR ALL REMOTE HEAD TYPE EMERGENCY FIXTURES. INSTALL ON INTERIOR SIDE OF WALL AND LOCATE ABOVE ACCESSIBLE CEILING WHEN CEILING ARE PRESENT  
 • COORDINATE EXACT LOCATION AND FINISH OPTIONS OF ALL EMERGENCY REMOTE TEST SWITCHES WITH ARCHITECT PRIOR TO INSTALL AND CONNECT FOR OPERATION.  
 • SUSPENDED EXIT SIGNS SHALL BE SUPPORTED WITH PAINTED STEMS AND CONCEALED MOUNTING PLATES BY PENDANT SYSTEMS OR EQUAL. (EXCEPTIONS TO THIS REQUIREMENT INCLUDE WAREHOUSE, STORAGE AND INDUSTRIAL SPACES.)  
 • EXIT SIGNS LOCATED AT STOREFRONT EXITS AND ADJACENT CEILING IS GREATER THAN 12 A.F.F. SHALL BE INSTALLED CENTERED ON HORIZONTAL MULLION OF THE STOREFRONT SYSTEM ABOVE THE DOORWAY. ALL WIRING SHALL BE CONCEALED WITHIN MULLIONS AND SIGN SHALL BE INSTALLED FLUSH. NO VISIBLE BACK BOXES SHALL BE ALLOWED.

**NOTE:**  
 1. MOUNT FIXTURE ABOVE DOOR. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION.

CLIENT:  
 ST. JOHN'S FIRE & RESCUE  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

**PROMUS INC.**

NOT SCALE  
 DATE: 05/15/2024  
 PROJECT: 20213261.001.2  
 SHEET: 11 OF 11  
 DRAWN BY: BRANDON SHARP  
 CHECKED BY: BRANDON SHARP

NO.	DATE	BY	DESCRIPTION
1	11/15/24		Permit Set

ALL DIMENSIONS ARE IN UNITS OF INCHES UNLESS OTHERWISE SPECIFIED.  
 ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE SPECIFIED.  
 ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED.

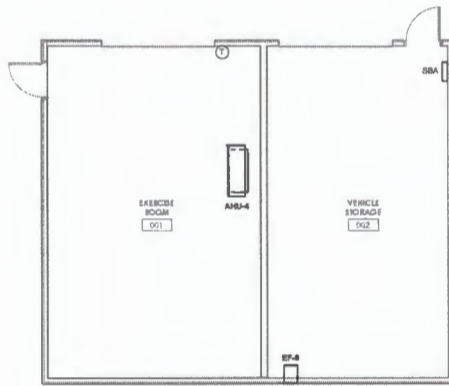
**ELECTRICAL NOTES**

4630 MELANIE STREET  
 FLAGLER ESTATES SHERIFF STORAGE  
 TOWN/CITY: HASTINGS  
 COUNTY: SISK STATE: FLORIDA  
 PROJECT NO: 20213261.001.2

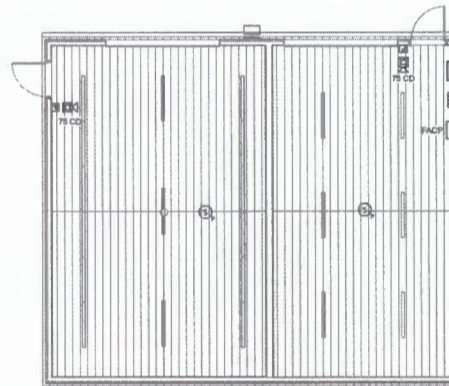
BRANDON L. SHARP, P.E.  
 FLORIDA LICENSE #92533  
 4245 LAND ROAD  
 HALL GROUND, GA 30107  
 PROJECT MANAGER: BRANDON SHARP  
 EMAIL: brandon.sharp@promus.us

**BID SET**

NO. A1 - E-002  
 DATE: NOVEMBER 15, 2024



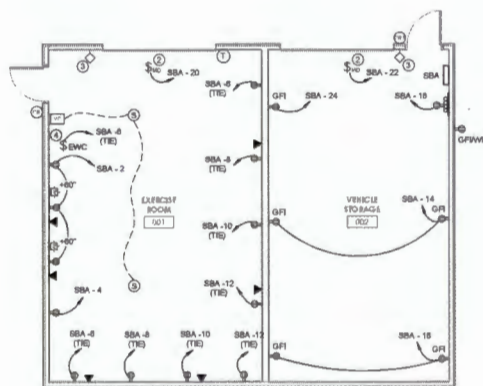
**3 MECHANICAL POWER FLOOR PLAN**  
3/16" = 1'-0"



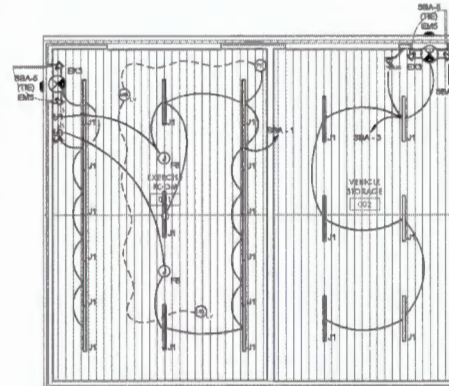
**4 FIRE ALARM FLOOR PLAN**  
3/16" = 1'-0"

**FIRE ALARM SYMBOLS**

- ☐ FIRE ALARM MANUAL PULL STATION, NOTIFIER NBD-12LX
- ☉ PHOTOELECTRIC SMOKE DETECTOR, NOTIFIER FSP-616210LP
- ☐ ADDRESSABLE FIRE ALARM CONTROL PANEL, NOTIFIER NFS-320
- ☐ FIRE ALARM HORN/STROBE COMBINATION WITH WHITE FINISH, NOTIFIER PZR SERIES (NUMERICAL ADJACENT INDICATES CANDLE RATING)
- ☐ FIRE ALARM FLOW SWITCH (FURNISHED BY SPRINKLER CONTRACTOR)
- ☐ FIRE ALARM TAMPER SWITCH (FURNISHED BY SPRINKLER CONTRACTOR)
- ☐ CONTROL RELAY MODULE, NOTIFIER CMS-2 (FAH SHUT DOWN)
- ☐ MONITOR MODULE, PROVIDE ONE FOR EACH FLOW SWITCH, TAMPER SWITCH, AND AIR DUCT SMOKE DETECTOR, NOTIFIER MMS-101



**2 POWER FLOOR PLAN**  
3/16" = 1'-0"



**1 LIGHTING FLOOR PLAN**  
3/16" = 1'-0"

**KEY NOTE**

- ① PROPOSED LOCATION OF PHOTOCELL FOR CONTROL OF BUILDING EXTERIOR LIGHTING.
- ② PROVIDE ELECTRICAL CONNECTION TO OVERHEAD DOOR OPERATOR, COORDINATE EXACT REQUIREMENTS WITH DOOR MANUFACTURER AND INSTALLER AND CONNECT FOR OPERATION.
- ③ OVERHEAD DOOR OPERATOR SWITCHES, TYPICAL, COORDINATE EXACT LOCATIONS WITH OWNER PRIOR TO ROUGH-IN AND CONNECT TO OVERHEAD DOOR CONTROL.
- ④ DISCONNECTING MEANS MOUNTED ADJACENT TO ELECTRIC WATER COOLER CHILLER, INTERNAL TO UNIT WHEN WALL MOUNTED. COORDINATE EXACT LOCATION WITH PLUMBING DRAWINGS OR UNIT CUT SHEETS PRIOR TO ROUGH-IN.

CLIENT:  
ST. JOHN'S FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
1778 20th Street  
St. Augustine, FL 32084

NO.	DATE	BY	DESCRIPTION
1	11/15/24		Permit Set

**ELECTRICAL FLOOR PLANS**

4630 MELANIE STREET  
FLAGLER ESTATES SHERIFF STORAGE  
TOWNSHIP: HARTINGBOR  
COUNTY: STC STATE: FLORIDA

PROJECT NO: 20213261.0012

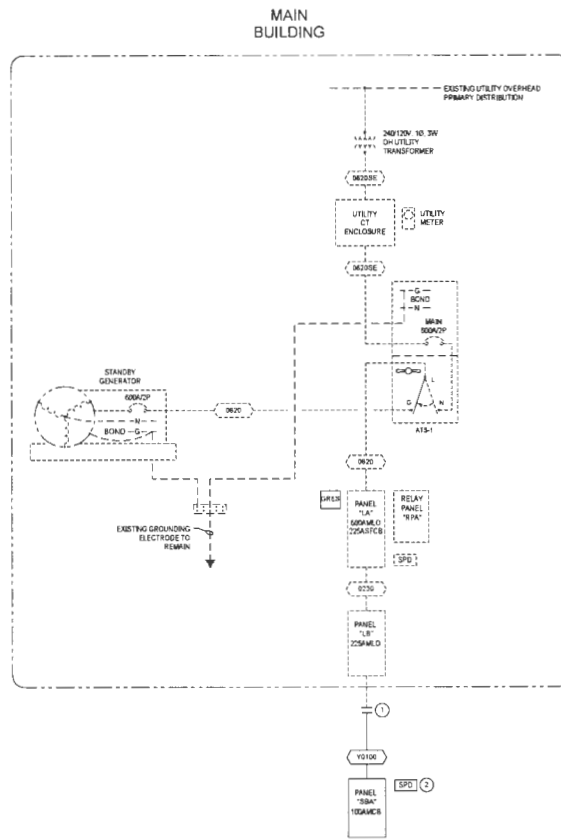
DATE: A1 - E-201

DATE: NOVEMBER 15, 2024

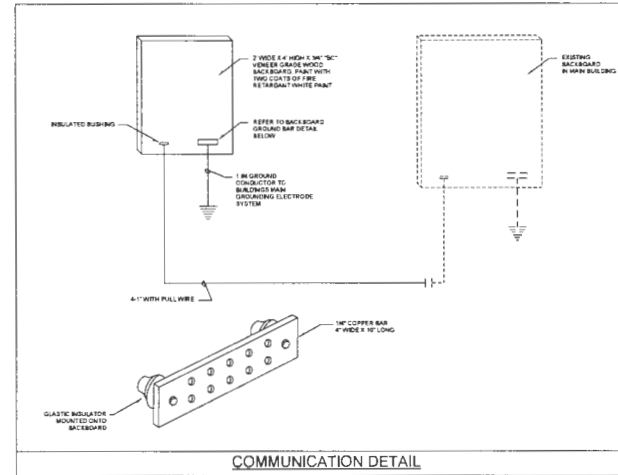
BRANDON L. SHARP, P.E.  
FLORIDA LICENSE #92333  
4245 LAND ROAD  
BALL BEGUND, GA 30107

PROJECT MANAGER: BRANDON SHARP  
E-MAIL: brandon.sharp@promus.us

**BID SET**



ELECTRICAL ONE LINE DIAGRAM



COMMUNICATION DETAIL

ONE LINE DIAGRAM KEY NOTES

- INTERCEPT AND EXTEND EXISTING CONDUIT AS REQUIRED. PROVIDE NEW CONDUCTORS AS INDICATED AND CONNECT FOR OPERATION.
- PROVIDE SURGE PROTECTIVE DEVICE (SPD) WITH 300KA SURGE CURRENT RATING IN A NEMA 1 ENCLOSURE SURFACE MOUNTED. SPD SHALL BE UL 1448, LATEST EDITION LISTED.

FEEDER SCHEDULE

TAG	SETS	CONDUIT	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	GROUNDING CONDUCTOR
0600E	(2)	3"	(2) 350KCM	(1) 350KCM	N/A
0620	(2)	3"	(2) 350KCM	(1) 350KCM	(1) #1
0230	(1)	2-1/2"	(2) #40	(1) #40	(1) #4
Y0100	(1)	1-1/2"	(2) #3	(1) #3	(1) #8

GENERAL NOTES:  
 \* CONDUIT AND CONDUCTOR SIZES ARE BASED ON THIRTYMINUTE FIRE RATED CONDUCTORS AND 40% FILL IN EMT CONDUIT. CONTRACTOR SHALL ADJUST AS REQUIRED PER NEC FOR ALL OTHER CONDUIT TYPES.  
 \* FEEDERS WITH MULTIPLE CONDUITS INDICATED SHALL BE PARALLELED

PANELBOARD SCHEDULE

PANEL NAME	FED FROM	CONNECTED LOAD (A)	DEMAND LOAD (A)	BUS RATING	MAINS TYPE	MCB RATING	PHASES	WRES	ISCA	SC RATING	ENCLOSURE	MOUNTING
SEA	LB	47 A	49 A	125 A	MCB	100 A	1	3		10MVA	NEMA1	SURFACE

CLIENT:  
 ST. JOHN'S FIRE & RESCUE  
 4040 Lewis Speedway  
 St. Augustine, Florida 32084

PROMUS INC.

4245 J. AND ROAD  
 BALL GROUND, GA 30107  
 PROJECT NUMBER: 20213261.0012  
 DRAWING NUMBER: A1 - E-501

NO.	DATE	BY	DESCRIPTION

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ELECTRICAL ONE LINE DIAGRAM

4630 MELANIE STREET

FLAGLER ESTATES SHERIFF STORAGE

TOWN/CITY: HASTINGS

COUNTY: SUC STATE: FLORIDA

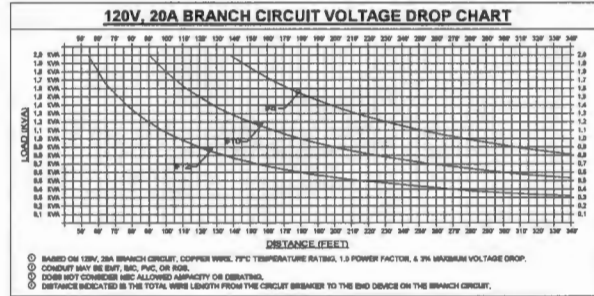
PROJECT NUMBER: 20213261.0012

DRAWING NUMBER: A1 - E-501

DATE: NOVEMBER 15, 2024

BRANDON L. SHARP, P.E.  
 FLORIDA LICENSE #92513  
 4245 J. AND ROAD  
 BALL GROUND, GA 30107  
 PROJECT MANAGER: BRANDON SHARP  
 EMAIL: brandon.sharp@promus.us

**BID SET**



### MECHANICAL EQUIPMENT - ELECTRICAL SCHEDULE

EQUIPMENT TAG	BRANCH CIRCUIT	DISCONNECT (Amps)	RECONNECT (Amps)	RECOMMENDED WIRING METHOD	NOTES
AHJ-4	80A-3P-3W	80A	2		3
HP-4	10A-2P-3W	10A	2		1,2
EP-7	80A-1P	80A	1		1

#### NOTES:

- PROVIDE MEM IN ENCLOSURE.
- PROVIDE FUSES AS RECOMMENDED BY EQUIPMENT MANUFACTURER OR NAMEPLATE RATINGS.
- WIRE CIRCUIT THROUGH LINE VOLTAGE TAP, SUPPLIED BY MECHANICAL.
- GENERAL MOTOR/RED DAMPER NOTES:**
  - MOTORIZED DAMPERS TO BE POWERED VIA ORIGINATING BRANCH CIRCUIT OF FAN. UNLESS NOTED OTHERWISE, REFER TO MANUFACTURER WIRING DETAIL FOR REQUIREMENTS. COORDINATE CONTROL OF MOTORIZED DAMPERS AT FAN AND LOUVERS WITH MECHANICAL CONTRACTOR. PROVIDE WIRING AND RELAYS REQUIRED TO OPERATE DAMPERS BASED ON FAN/BLOWER OPERATOR SERVING SAME ROOM OR SPACE.
  - DISCONNECT / MOTOR STARTER TO BE PROVIDED BY THIS CONTRACTOR.

### BRANCH CIRCUIT PANEL - SBA

VOLTAGE: 120V SINGLE PHASE: 1 WIRE: 3  
SUPPLY FROM: LB  
BUSA: 100A  
NOTES:

BUSA RATING: 125A  
MFR TYPE: MCB  
MFR RATING: 100A  
AIC RATING: 10KAIC

ENCLOSURE: NEMA1  
MOUNTING SURFACE  
LOCATION: Space 1803  
MFR / SUBSTN: New Construction

NOTES	CKT	CIRCUIT DESCRIPTION	TYP	POLIS	A	B	POLIS	TYP	CIRCUIT DESCRIPTION	CKT	NOTES
	1	LTO. EXERCISE ROOM	20 A	1	0.7	0.3	1	20 A	RECEIPT. EXERCISE RM	2	
	3	LTO. STORAGE RM	20 A	1	0.3	0.2	1	20 A	RECEIPT. EXERCISE RM	4	
	5	LTO. EXTERIOR	20 A	1	0.0	0.0	1	20 A	RECEIPT. EXERCISE RM	6	
	7	-- SPARE --	20 A	1			1	20 A	RECEIPT. EXERCISE RM	8	
	9	-- SPARE --	20 A	1	0.0	0.0	1	20 A	RECEIPT. EXERCISE RM	10	
	11	-- SPARE --	20 A	1			1	20 A	RECEIPT. EXERCISE RM	12	
	13	-- SPARE --	20 A	1	0.0	0.4	1	20 A	RECEIPT. STORAGE RM	14	
	15	-- SPARE --	--	1		0.4	1	20 A	RECEIPT. STORAGE RM	16	
	17	-- SPARE --	--	1		0.5	1	20 A	RECEIPT. COMM BRO	18	
	19	-- SPARE --	--	1		0.9	1	20 A	OH DOOR EXERCISE	20	
	21	EP-7	15 A	1	0.3	0.2	1	20 A	OUTDOOR STORAGE	22	
	23	AHJ-4	20 A	2	2.8	0.2	1	20 A	RECEIPT. GOLF CART STOR	24	
	25	HP-4	10 A	2	0.0	0.0	2	40 A	-- SPARE --	26	
	27								SFD	28	
	29									30	

Total Load: 6.2 kVA 43 A  
Total Amps: 52 A 43 A

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTAL LOAD
LIGHTING	1.0 kVA	125.00%	1.0 kVA	TOTAL OVERSICURED AMPS 49 A
RECEPTACLES	2.4 kVA	100.00%	2.4 kVA	TOTAL OVERSICURED AMPS 47 A
HVAC EQUIPMENT	6.8 kVA	100.00%	6.8 kVA	TOTAL OVERSICURED LEAD 11.2 kVA
				TOTAL CONNECTED LOAD 11.4 kVA

### BRANCH CIRCUIT CONDUIT AND CONDUCTOR SIZING

EXT. BRK. RATING	MINIMUM REQUIRED CIRCUIT CONDUIT AND CONDUCTOR SIZE	CT. BRK. RATING	MINIMUM REQUIRED CIRCUIT CONDUIT AND CONDUCTOR SIZE
<b>SINGLE POLE CIRCUITS</b>			
15A1P	(14-012, 14-012 N, 14-012 G, 3/4" C.	35A1P	(14-048, 14-048 N, 14-048 G, 3/4" C.
20A1P	(14-012, 14-012 N, 14-012 G, 3/4" C.	40A1P	(14-048, 14-048 N, 14-048 G, 3/4" C.
25A1P	(14-015, 14-015 N, 14-015 G, 3/4" C.		
30A1P	(14-015, 14-015 N, 14-015 G, 3/4" C.		
<b>TWO POLE CIRCUITS WITHOUT NEUTRAL</b>			
15A2P	(2-012, 14-012N, 14-012 G, 3/4" C.	15A2P	(2-012, 14-012 G, 3/4" C.
20A2P	(2-012, 14-012N, 14-012 G, 3/4" C.	20A2P	(2-012, 14-012 G, 3/4" C.
25A2P	(2-015, 14-015N, 14-015 G, 3/4" C.	25A2P	(2-015, 14-015 G, 3/4" C.
30A2P	(2-015, 14-015N, 14-015 G, 3/4" C.	30A2P	(2-015, 14-015 G, 3/4" C.
40A2P	(2-048, 14-048N, 14-048 G, 3/4" C.	40A2P	(2-048, 14-048 G, 3/4" C.
50A2P	(2-048, 14-048N, 14-048 G, 3/4" C.	50A2P	(2-048, 14-048 G, 3/4" C.
60A2P	(2-048, 14-048N, 14-048 G, 1" C.	60A2P	(2-048, 14-048 G, 1" C.
70A2P	(2-048, 14-048N, 14-048 G, 1.5" C.	70A2P	(2-048, 14-048 G, 1.5" C.
80A2P	(2-048, 14-048N, 14-048 G, 1.5" C.	80A2P	(2-048, 14-048 G, 1.5" C.
90A2P	(2-048, 14-048N, 14-048 G, 1.5" C.	90A2P	(2-048, 14-048 G, 1.5" C.
100A2P	(2-048, 14-048N, 14-048 G, 1.5" C.	100A2P	(2-048, 14-048 G, 1.5" C.
<b>THREE POLE CIRCUITS WITH NEUTRAL</b>			
15A3P	(3-012, 14-012N, 14-012 G, 3/4" C.	15A3P	(3-012, 14-012 G, 3/4" C.
20A3P	(3-012, 14-012N, 14-012 G, 3/4" C.	20A3P	(3-012, 14-012 G, 3/4" C.
25A3P	(3-015, 14-015N, 14-015 G, 3/4" C.	25A3P	(3-015, 14-015 G, 3/4" C.
30A3P	(3-015, 14-015N, 14-015 G, 3/4" C.	30A3P	(3-015, 14-015 G, 3/4" C.
40A3P	(3-048, 14-048N, 14-048 G, 3/4" C.	40A3P	(3-048, 14-048 G, 3/4" C.
50A3P	(3-048, 14-048N, 14-048 G, 3/4" C.	50A3P	(3-048, 14-048 G, 3/4" C.
60A3P	(3-048, 14-048N, 14-048 G, 1" C.	60A3P	(3-048, 14-048 G, 1" C.
70A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	70A3P	(3-048, 14-048 G, 1.5" C.
80A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	80A3P	(3-048, 14-048 G, 1.5" C.
90A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	90A3P	(3-048, 14-048 G, 1.5" C.
100A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	100A3P	(3-048, 14-048 G, 1.5" C.
<b>THREE POLE CIRCUITS WITHOUT NEUTRAL</b>			
125A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	125A3P	(3-048, 14-048 G, 1.5" C.
150A3P	(3-048, 14-048N, 14-048 G, 1.5" C.	150A3P	(3-048, 14-048 G, 1.5" C.
200A3P	(3-048, 14-048N, 14-048 G, 2" C.	200A3P	(3-048, 14-048 G, 2" C.
300A3P	(3-048, 14-048N, 14-048 G, 3" C.	300A3P	(3-048, 14-048 G, 3" C.

- PROVIDE CONDUIT AND CONDUCTORS FOR BRANCH CIRCUITS PER CIRCUIT BREAKER RATINGS INDICATED IN PANEL SCHEDULE.
- DETERMINE CONDUIT AND CONDUCTOR SIZES AS REQUIRED PER VOLTAGE DROP ALLOWED CHARTS.
- ALL CONDUIT SIZES BASED ON EMT CONDUIT WITH THIN-WALL CONDUCTORS. INCREASE CONDUIT SIZE AS REQUIRED PER NEC CONDUIT FILL TABLES FOR ALL OTHER CONDUIT TYPES OR CONDUCTORS.

**PASSERO**  
engineering & architecture

**PROMUS**

**ML+H**

CLIENT:  
ST. AUGUSTINE FIRE & RESCUE  
4040 Lewis Speedway  
St. Augustine, Florida 32084

**PROMUS INC.**  
4001 LEO ROAD, STE. 100-1000  
BALL BEACH, FL 32007  
PROJECT MANAGER: Brandon Sharp  
PROJECT ENGINEER: Brandon Sharp  
PROJECT ARCHITECT: Brandon Sharp

NO. DATE BY DESCRIPTION  
11/15/24 Permit Set

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ELECTRICAL DETAILS

4630 MELANIE STREET  
FLAGLER ESTATES SHERIFF STORAGE  
TOWNCITY: HASTINGS  
COUNTY: SDC STATE: FLORIDA

4345 LAND ROAD  
BALL GROUND, GA 30107  
PROJECT MANAGER: BRANDON SHARP  
E-MAIL: bsharp@promus.com

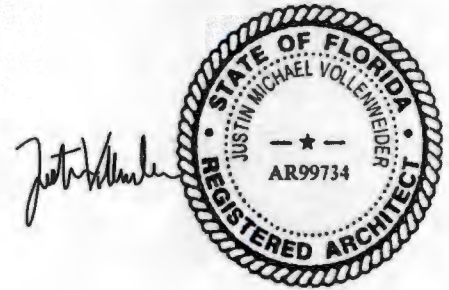
**BID SET**

20213261.0012  
A1 - E-601  
NOVEMBER 15, 2024

**TECHNICAL SPECIFICATIONS**  
**FOR**  
**SJC FIRE STATION #21 & SHERIFF'S OFFICE**

**AT**  
**4630 MELANIE STREET**  
**HASTINGS, FLORIDA 32145**

**PREPARED FOR:**



**PREPARED BY:**

**PASSERO**

**4730 CASA COLA WAY, SUITE 200**  
**ST. AUGUSTINE, FLORIDA 32095**

**NOVEMBER 15, 2024**

**SECTION 00 01 10 - TABLE OF CONTENTS****PROCUREMENT AND CONTRACTING REQUIREMENTS****1.01 DIVISION 00 -- PROCUREMENT AND CONTRACTING REQUIREMENTS**

- A. 00 01 10 - Table of Contents
- B. 00 31 00 - Available Project Information

**SPECIFICATIONS****2.01 DIVISION 01 -- GENERAL REQUIREMENTS**

- A. 01 00 00 - General Requirements
- B. 01 10 00 - Summary
- C. 01 20 00 - Price and Payment Procedures
- D. 01 21 00 - Allowances
- E. 01 23 00 - Alternates
- F. 01 25 00 - Substitution Procedures
- G. 01 30 00 - Administrative Requirements
- H. 01 31 00 - Project Management and Coordination
- I. 01 32 00 - Construction Progress Documentation
- J. 01 33 00 - Submittal Procedures
- K. 01 42 00 - References
- L. 01 50 00 - Temporary Facilities and Controls
- M. 01 60 00 - Product Requirements
- N. 01 73 00 - Execution
- O. 01 77 00 - Closeout Procedures
- P. 01 78 23 - Operations and Maintenance Data
- Q. 01 78 39 - Project Record Documents
- R. 01 79 00 - Demonstration and Training

**2.02 DIVISION 02 -- EXISTING CONDITIONS****2.03 DIVISION 03 -- CONCRETE**

- A. 03 30 00 - Cast-in-Place Concrete
- B. 03 35 11 - Concrete Floor Finishes

**2.04 DIVISION 04 -- MASONRY**

- A. 04 20 00 - Unit Masonry
- B. 04 72 00 - Cast Stone Masonry
- C. 04 73 00 - Manufactured Stone Masonry

**2.05 DIVISION 05 -- METALS**

- A. 05 12 00 - Structural Steel Framing
- B. 05 21 00 - Steel Joist Framing
- C. 05 31 00 - Steel Decking
- D. 05 50 00 - Metal Fabrications

**2.06 DIVISION 06 -- WOOD, PLASTICS, AND COMPOSITES**

- A. 06 10 53 - Miscellaneous Rough Carpentry
- B. 06 41 00 - Architectural Wood Casework

**2.07 DIVISION 07 -- THERMAL AND MOISTURE PROTECTION**

- A. 07 21 19 - Foamed-In-Place Insulation
- B. 07 41 13 - Metal Roof Panels
- C. 07 62 00 - Sheet Metal Flashing and Trim

- D. 07 71 23 - Manufactured Gutters and Downspouts
- E. 07 84 00 - Firestopping
- F. 07 92 00 - Joint Sealants

**2.08 DIVISION 08 -- OPENINGS**

- A. 08 11 13 - Hollow Metal Doors and Frames
- B. 08 14 16 - Flush Wood Doors
- C. 08 33 26 - Overhead Coiling Grilles
- D. 08 36 00 - Four-Fold Bay Doors
- E. 08 36 13 - Sectional Doors
- F. 08 43 13 - Aluminum-Framed Storefronts
- G. 08 44 35 - Protective Framed Glazing Assemblies
- H. 08 71 00 - Door Hardware
- I. 08 80 00 - Glazing
- J. 08 88 13 - Fire-Rated Glazing

**2.09 DIVISION 09 -- FINISHES**

- A. 09 21 16 - Gypsum Board Assemblies
- B. 09 22 16 - Non-Structural Metal Framing
- C. 09 24 00 - Cement Plastering
- D. 09 30 00 - Tiling
- E. 09 51 00 - Acoustical Ceilings
- F. 09 54 23 - Linear Metal Ceilings
- G. 09 65 00 - Resilient Flooring
- H. 09 67 00 - Fluid-Applied Flooring
- I. 09 68 13 - Tile Carpeting
- J. 09 84 30 - Sound-Absorbing Wall and Ceiling Units
- K. 09 91 13 - Exterior Painting
- L. 09 91 23 - Interior Painting

**2.10 DIVISION 10 -- SPECIALTIES**

- A. 10 14 00 - Signage
- B. 10 14 19 - Dimensional Letter Signage
- C. 10 26 00 - Wall and Door Protection
- D. 10 28 00 - Toilet, Bath, and Laundry Accessories
- E. 10 28 19 - Tub and Shower Enclosures
- F. 10 44 00 - Fire Protection Specialties
- G. 10 51 43 - Wire Mesh Storage Lockers
- H. 10 73 16.13 - Metal Canopies

**2.11 DIVISION 12 -- FURNISHINGS**

- A. 12 24 00 - Window Shades
- B. 12 36 00 - Countertops

**2.12 DIVISION 13 -- SPECIAL CONSTRUCTION**

- A. 13 34 19 - Metal Building Systems

**2.13 DIVISION 22 -- PLUMBING**

- A. 22 00 00 - Plumbing

**2.14 DIVISION 23 -- HEATING, VENTILATING, AND AIR-CONDITIONING (HVAC)**

- A. 23 00 00 - HVAC Air-Distribution System Cleaning

**2.15 DIVISION 26 -- ELECTRICAL**

- A. 26 00 00 - Electrical

**2.16 DIVISION 27 -- COMMUNICATIONS (NOT USED)**

A. 27 10 00 - Structured Cabling

**2.17 DIVISION 31 -- EARTHWORK**

A. 31 31 16 - Termite Control

**END OF SECTION 00 01 10**



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**SECTION 00 31 00 - AVAILABLE PROJECT INFORMATION**

**PART 1 GENERAL**

**1.01 EXISTING CONDITIONS**

- A. Certain information relating to existing surface and subsurface conditions and structures is available to bidders, as follows:
- B. Geotechnical Report: Entitled Geotechnical Engineering Report, by ECS Florida LLC, dated June 20, 2024; Revised August 2, 2024.
  - 1. This report identifies properties of below grade conditions and offers recommendations for the design of foundations, prepared primarily for the use of Architect/Engineer.
  - 2. This report, by its nature, cannot reveal all conditions that exist on the site. Should subsurface conditions be found to vary substantially from this report, changes in the design and construction of foundations will be made, with resulting credits or expenditures to the Contract Sum accruing to Owner.
- C. Existing condition information provided is for Contractor's information and use. It is the Contractor's responsibility to determine if additional site evaluations are required and to include necessary costs in base bid. Cost for additional site investigations will not be allowed after bid.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 00 31 00**

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## SECTION 01 00 00 - GENERAL REQUIREMENTS

### PART 1 GENERAL

#### 1.01 PROJECT SCOPE

- A. The Contractor shall provide labor, materials, equipment, and services, and perform all of the Work of this Contract as specified and as indicated on the Contract Drawings.

#### 1.02 REFERENCED STANDARDS AND SPECIFICATIONS

- A. Applicable Codes, Specifications and Standards: All references to codes, specifications and standards in the Contract Documents shall mean and are intended to be, the latest edition, amendment and/or revision of reference standard in effect as of the date of bid opening for this Contract.

#### 1.03 COMPLIANCE WITH LAWS, ORDINANCES CURRENTLY IN EFFECT

- A. Contractor shall comply with all applicable laws, ordinances and codes of the appropriate jurisdiction having control and effect upon the work of this Contract. Before installing any work, the Contractor shall inform himself on any law, ordinance or code affecting the work; and, where this law, ordinance or code is at variance with these specifications or drawings, the Contractor shall report the discrepancy to the Architect in writing for his resolution to remove the discrepancy.
- B. Should the Contractor elect to ignore the conditions stipulated in above paragraph and proceed with the work or variance with any applicable ordinances or code, the Contractor shall remove such work without cost to the Owner and proceed with the work in a manner as specified by the Architect.
- C. Contractor shall comply with applicable laws and ordinances governing the disposal of surplus excavation, materials, debris and rubbish on or off the project and commit no trespass on any public or private property in any operation due to or connected with the work.

#### 1.04 TAXES

- A. The Contractor will pay all sales, consumer, use and other similar taxes required by the law in the place where the Work is to be performed.

#### 1.05 LAYOUT OF WORK

- A. The Contractor shall layout his work and shall be responsible for all measurements in connection with the efforts identified under this project. The Contractor shall furnish at his own expense, any templates, platforms, equipment, tools and other materials and labor as may be required to execute the work identified. The Contractor shall coordinate the design efforts associated with the work indicated under this Project and shall provide the required construction and support to meet the requirements of the Contract.

#### 1.06 CONTRACTOR'S USE OF PREMISES

- A. The Contractor shall confine construction equipment, the storage of materials and equipment and operations of workmen to within the limits of construction as dictated by the Owner and on the drawings.
- B. The Contractor shall assume full responsibility for materials stored on site including materials for which the Owner has made payment and purchase and maintain such additional amounts of insurance as are necessary to provide coverage against loss or damage to the materials.
- C. The Contractor shall transport materials remaining at the completion of the project for which the Owner has made payment to a storage area designated on site by the Owner.
- D. The Contractor shall perform his work in a neat and quiet manner and, upon completion, shall remove from the site all excess materials, trash and appurtenances

not required to be incorporated in the finish work. The Contractor shall be required to effectively protect the portions of the existing facilities to remain; any resultant damage to existing remaining portions of structures, site-work, piping systems or equipment thereof shall be restored to conditions existing prior to execution of his work.

#### **1.07 ORDER OF WORK**

- A. Contractor shall make himself familiar with all notes on Drawings and actual site conditions and existing conditions on and around the site.
- B. It shall be the Contractor's responsibility to arrange the schedule so as not to inconvenience the Owner.
- C. The Contractor shall be responsible for the protection of the Owner's buildings, facilities, and improvements within the areas where the work is being performed and adjacent properties. Any disturbance or damage to the work being performed by the Contractor, a separate contractor, or to the existing building, improvements or equipment and adjacent properties, or any other impairment of the Owner's facilities resulting from the Contractor's performance shall be promptly restored, repaired, or replaced by the responsible Contractor at no extra cost to the Owner.
- D. Contractor shall be responsible for performing his work in such manner to maintain essential ingress and egress for occupants to the Owner's building and facilities and to continuously maintain all required emergency exits from the circulation between existing facilities. Passageways for emergency exits shall be kept continuously open and free from debris, construction equipment, tools, materials, or other hazards. The Contractor shall provide all necessary temporary work which may be required to obtain and maintain all such ingress, egress, and circulation requirements; temporary work shall be removed when no longer required.
- E. The Contractor should always conduct his operations to interfere as little as possible with existing works. The Contractor shall develop a program, in cooperation with the Owner and interested officials (Authorities Having Jurisdiction), which shall provide for the construction and putting into service of the new works in the most orderly manner possible. This program shall be adhered to except as deviations therefrom are expressly permitted. All work associated with this Contract shall be planned to interfere with the operation of the existing facilities for the shortest possible time when the demands on the facilities best permit such interference, even though it may be necessary to work outside of normal working hours to meet these requirements. Before starting work, which will interfere with the operation of existing facilities, the Contractor shall do all possible preparatory work and shall see that all tools, materials, and equipment are ready and at hand.
- F. Ensure non-interference with the Owner's operations during the performance of the work, the Contractor shall remove from the building, facilities, and improvements where the work is being performed all trash, combustible materials and debris of all kinds being created during the performance of the work and upon completion of the work. This obligation shall also include all debris created by any subcontractors or materialmen engaged by the Contractor in performing the work. Such debris shall be disposed of off-site to facilities furnished by the Contractor.

#### **1.08 CLEANING UP**

- A. The Contractor shall continuously keep the Work, the site, and adjacent properties free from accumulations of waste materials, excess excavation, rubbish, and windblown debris resulting from construction operations. Remove waste materials, excess excavation, debris, and rubbish from the site daily.
- B. The Contractor shall remove grease, mastics, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from site-exposed interior and exterior surfaces of structures. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds. Restore areas disturbed by construction.

- C. At the completion of the work, or each major portion thereof, the Contractor shall remove surplus materials, tools, construction equipment and machinery and leave the site clean and ready for occupancy by the Owner.
- D. Final cleaning shall be as specified in Section 017700 – Closeout Procedures.

**1.09 CONSTRUCTION STAGING AREA**

- A. Location of Contractor's equipment storage and parking will be determined by the Contractor in consultation with the Owner and Architect.
- B. The Contractor shall be allowed to have employees (and subcontractors) personal vehicles park in an area on the site designated by the Owner/Architect.
- C. Parking of employees and construction vehicles in any adjacent residential areas is prohibited.
- D. The Contractor shall confine his operations to the area designated. These areas may be used for the storage of the materials and equipment necessary to perform the work defined in the Contract Documents.
- E. The above -mentioned areas are limited; both during normal working hours and Contractor hours. If additional storage space is necessary, the Contractor shall be responsible for finding and securing such areas for his use. The use of these areas shall not interfere with vehicular or pedestrian traffic, nor shall it restrict the current use of these areas by the Owner.
- F. The Owner assumes no responsibility for the Contractor's property and that of their employees.
- G. All areas must be restored to their original condition upon completion of the contract.

**1.10 KEYING**

- A. The contractor shall use the county standard lock cylinders for every lock and shall key the doors per the owner's standard and as directed by the owner. A keying schedule shall be requested by the contractor at the appropriate time. The owner will provide the completed schedule and the contractor will provide and install the cores before Substantial Completion. The keys will be delivered to the owner via transmittal form on or before Substantial Completion.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 00 00**

## SECTION 01 10 00 - SUMMARY

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section Includes:
  - 1. Project information.
  - 2. Work covered by Contract Documents.
  - 3. Work under Owner's separate contracts.
  - 4. Contractor's use of site and premises.
  - 5. Coordination with occupants.
  - 6. Work restrictions.
  - 7. Specification and Drawing conventions.
- B. Related Requirements:
  - 1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.
  - 2. Section 017300 "Execution" for coordination of Owner-installed products.

#### 1.03 DEFINITIONS

- A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

#### 1.04 PROJECT INFORMATION

- A. Project Identification: Fire Station #21 & Sheriff's Office.
  - 1. Project Location: 4630 Melanie Street, Hastings, FL 32145.
- B. Owner: St. Johns County, 4040 Lewis Speedway, St. Augustine, FL 32084
  - 1. Owner's Project Manager: Brad Guagliardo, bguagliardo@sjcfl.us.
- C. Architect: Passero Associates LLC, 4730 Casa Cola Way, Suite 200, St. Augustine, FL 32095.
  - 1. Architect's Representative: Justin Vollenweider AIA, jvollenweider@passero.com.
  - 2. Structural Representative: Patrick Williams PE, pwilliams@passero.com.
  - 3. Civil Representative: Matt Singletary PE, msingletary@passero.com
- D. Architect's Consultants: Architect has retained the following design professionals, who have prepared designated portions of the Contract Documents:
  - 1. Mechanical, Electrical, Plumbing Engineer: Promus, 4245 Land Road, Ball Ground, GA 30107.
    - a. Consultant Representative: Darin Frick, PE, darin.frick@promus.us.
  - 2. Landscape and Irrigation: Marquis Latimer and Halback, Inc., 34 Cordova, Suite A, St. Augustine, FL 32084.
    - a. Consultant Representative: Fremont Latimer RLA, fremont@halback.com

#### 1.05 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and includes, but is not limited to, the following:
  - 1. Construction of a new single story combined fire/sheriff station. The building generally consists of concrete masonry walls with steel joist and metal roofing. The exterior facades will be finished with stucco and veneer stone masonry. The building will consist of bunk rooms, toilet/shower rooms, day room, kitchen, offices, apparatus bays and support spaces.

**B. Type of Contract:**

1. Project will be constructed under a single prime contract.

**1.06 OWNER FURNISHED EQUIPMENT**

A. The Owner may furnish some items of equipment or furniture on this project. These items are designated below (or on the drawings) as 'Owner Furnished and Contractor Installed' or 'Owner Furnished and Owner Installed'. The Contractor shall cooperate with the Owner in establishing the required delivery dates for Owner furnished equipment and these dates shall be designated in the Contractor's schedule. The Contractor shall review equipment shop drawings and product data provided by the Owner and note any discrepancies or anticipated problems with the use of the equipment.

1. Owner Furnished and Contractor Installed: The Contractor is responsible for receiving, unloading, and handling Owner furnished items at the project site; setting or installing the equipment in place; making any required connections to mechanical, plumbing, and electrical systems; and disposal of shipping or packing materials. The Owner and contractor shall jointly inspect items for damage upon delivery to the project site. If this inspection determines that Owner Furnished items are damaged, the Owner will arrange for the necessary replacement or repairs. The Contractor is responsible for protecting Owner furnished items from damage during storage and handling and is responsible for damage caused to Owner furnished items during storage and handling.
  - a. The following items will be Owner Furnished and Contractor Installed:
    - 1) Equipment as noted on drawings.
2. Owner Furnished and Owner Installed: The Owner will arrange for delivery, unloading, and handling Owner Furnished items at the project site; setting or installing the equipment/furniture in place and any required connections to the mechanical, plumbing, and electrical systems.
  - a. The following items will be Owner Furnished and Owner Installed:
    - 1) Furniture and equipment as noted on drawings.

**1.07 CONTRACTOR'S USE OF SITE AND PREMISES**

- A. Unrestricted Use of Site: Each Contractor shall make full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles always. Do not use these areas for parking or for storage of materials.
    - a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
    - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
  2. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.
  3. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations and return to pre-construction conditions.

**1.08 COORDINATION WITH OCCUPANTS**

- A. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited



occupancy shall not constitute acceptance of the total Work.

1. The architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
3. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

#### **1.09 WORK RESTRICTIONS**

- A. Comply with restrictions on construction operations.
  1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. On-Site Supervision: On-site supervision by a qualified Superintendent must be provided by the General Contractor whenever work is being performed, subcontractors or vendors are on site, or when materials are being delivered.
- C. On-Site Work Hours: Limit work to between 7 a.m. to 7 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging for temporary utility services according to requirements indicated:
  1. Notify Architect and Owner not less than two calendar days in advance of proposed utility interruptions.
  2. Obtain Owner's written permission before proceeding with utility interruptions.
- E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
  1. Notify Owner not less than two calendar days in advance of proposed disruptive operations.
  2. Obtain Owner's written permission before proceeding with disruptive operations.
- F. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, and other controlled substances on Project site is not permitted.

#### **1.10 SPECIFICATION AND DRAWING CONVENTIONS**

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  2. Text Color: Text used in the Specifications, including units of measure, manufacturer and product names, and other text may appear in multiple colors or underlined as part of a hyperlink; no emphasis is implied by text with these characteristics.
  3. Hypertext: Text used in the Specifications may contain hyperlinks. Hyperlinks may allow for access to linked information that is not residing in the Specifications. Unless otherwise indicated, linked information is not part of the Contract Documents.

4. Specification requirements are to be performed by the Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings and published as part of the U.S. National CAD Standard.
  3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 10 00**

## SECTION 01 21 00 - ALLOWANCES

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
  - 1. Lump-sum allowances.
- C. Related Requirements:
  - 1. Section 01 4000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

#### 1.03 DEFINITIONS

- A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

#### 1.04 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by Architect from the designated supplier.

#### 1.05 ACTION SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

#### 1.06 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.
  - 1. For each allowance type paragraph below, remove those not pertinent to allowances in the project.

#### 1.07 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include taxes, freight taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.
  - 1. If requested by Architect, retain retain, and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

**1.08 ADJUSTMENT OF ALLOWANCES**

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.
  - 1. Include installation costs in purchase amount only where indicated as part of the allowance.
  - 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
  - 3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
  - 4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
- B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
  - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
  - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION****3.01 EXAMINATION**

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

**3.02 PREPARATION**

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

**3.03 SCHEDULE OF ALLOWANCES**

- A. Allowance No. 1: Lump-Sum Allowance: Include the sum of \$40,000.00 for BDA equipment. Provide testing of Emergency Responders radio system and confirm it meets the requirements of FFPC NFPA 1 and NFPA 1221. Contractor shall provide turnkey design and installation of a new system meeting the requirements of FFPC NFPA 1 and NFPA 1221 if the system is determined to be required by testing.
  - 1. This allowance includes material, receiving, handling, and installation costs, and Contractor overhead and profit.

**END OF SECTION 01 21 00**

**SECTION 01 23 00 - ALTERNATES****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes administrative and procedural requirements for alternates.

**1.03 DEFINITIONS**

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

**1.04 PROCEDURES**

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other Work of the Contract.
- C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION****3.01 SCHEDULE OF ALTERNATES**

- A. Alternate No. 1 - Storage Building.
  - 1. Base Bid: Consists of mechanical enclosure, as shown on A-100, and fencing/sod at area of proposed storage building. Storage building not included.
  - 2. Alternate: Provide storage building as shown on A1-100 (and other drawings as applicable). Additionally, delete fence, sod and portion of mechanical enclosure wall as shown on C-301, in area of proposed storage building.
- B. Alternate No. 2 - Apparatus Bay Doors.
  - 1. Base Bid: Provide 4-fold apparatus bay doors per plans and specification section 08 36 00 - Four-Fold Bay Doors.
  - 2. Alternate: Replace 4-fold apparatus bay doors with sectional doors per specification section 08 36 13 - Sectional Doors.
- C. Alternate No. 3 - Water Tower.
  - 1. Base Bid: Provide fire service well in location shown on civil plans, including fire pump. Do not include water tower.

2. Alternate: Provide fire service well in alternate location shown on civil plans, including well pump and water tower.
- D. Alternate No. 4 - Apparatus Bay Fan
1. Base Bid: No work associated with fan.
  2. Alternate: Provide fan, controls, and all associated work as indicated on drawings.
- E. Alternate No. 5 - VE Site Items
1. Base Bid: Provide site items per plans and specifications.
  2. Alternate: Provide site reductions as follows:
    - a. Delete CMU walls at dumpster enclosure, well equipment enclosure and mechanical (aka CUP) enclosure, as shown on C-303/C-606, and replace with fence and privacy slats similar to detail on C-603.
    - b. Delete security fence, as shown on C-303, and all associated motorized cantilever gates, gate drivers, and high/low card reader pedestals. All conduits required for gates and access control operation shall remain in the scope and be installed for future use.
    - c. Delete Generator but maintain transfer switch and necessary infrastructure for future generator or mobile generator connection. Provide wall mounted camlock termination box on building exterior for mobile generator hook up. Locate adjacent to transfer switch. Transfer switch shall be capable of manual transfer and automatic transfer.
    - d. Remove site pole SP3 and provide (2) building mounted wall pack lights at 15,000 lumens each.
    - e. Delete bi-pass paving (north side of Fire Station Building, 15.17' x 331.75') including 527 SY of 8-Inch concrete pavement and 32 SY of 6-Inch concrete pavement.
    - f. Delete all concrete curb and gutter (including all Type F curb and gutter, Type D curb, and drop curb. Replace Type 9 Curb Inlets with Type C Ditch Bottom Inlets.
    - g. Reduce Pond Size by 15% (177 CY), delete fountain and all associated electrical. All conduits required for fountain shall remain in the scope and be installed for future use.
    - h. Delete mulched trails and all associated work except for trail leading to basketball court.
- F. Alternate No. 6 - VE Canopies
1. Base Bid: Provide canopies and coverings per plans and specifications.
  2. Alternate: Delete covered patio and entrance canopies.
    - a. Delete covered patio generally consisting of roofing, soffit, lighting and columns. (Note: Concrete patio and gas connection for grill to remain).
    - b. Delete entrance canopies at south facade.
- G. Alternate No. 7 - Delete Coffee and Kitchen Island Millwork
1. Base Bid: Provide kitchen island and coffee counter millwork as shown on A-400.
  2. Alternate: Delete coffee station and kitchen island millwork.
    - a. Delete coffee station millwork, tile and shelving.
    - b. Delete kitchen island millwork.
    - c. Provide accommodations within remaining kitchen millwork for trash bin. Location to be determined.
- H. Alternate No. 8 - Extend Contract Time
1. Base Bid: Contract time to remain as outlined in specifications and contract documents.
  2. Alternate: Extend current contract time by sixty (60) days.
- I. Alternate No. 9 - Building Automation

1. Base Bid: Provide building automation per plans and specifications.
  2. Alternate: Remove building automation system and provide stand alone controls for all systems to match system type.
- J. Alternate No. 10 - VE Floor Plan Changes
1. Base Bid: Provide floor plan per plans and specifications.
  2. Alternate: Provide revised floor plan per A-100A. Additionally, revised Sheriff's area to include mechanic
    - a. Reduce Sheriff area to approximately 250sf and modify layout to include toilet room, office and entry. Remove AHU-1, CU-1 and DHU-1. Provide (1) zone mini-split system with (1) ceiling cassettes. Each cassette shall have outside air to brick vent. System shall be 12,000 btu.

**END OF SECTION 01 23 00**

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## SECTION 01 25 00 - SUBSTITUTION PROCEDURES

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 012100 "Allowances" for products selected under an allowance.
  - 2. Section 012300 "Alternates" for products selected under an alternate.
  - 3. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

#### 1.03 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
  - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantage to Contractor or Owner.

#### 1.04 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use form that is part of web-based Project management software.
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
    - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitutions with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes, such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. Certificates and qualification data, where applicable or requested.
    - g. List of similar installations for completed projects, with project names and addresses as well as names and addresses of architects and owners.
    - h. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.

- i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
  - j. Detailed comparison of Contractor's construction schedule using proposed substitutions with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
  - k. Cost information, including a proposal of change, if any, in the Contract Sum.
  - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
  - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven calendar days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 calendar days of receipt of request, or seven calendar days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

#### **1.05 QUALITY ASSURANCE**

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

#### **1.06 PROCEDURES**

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

#### **1.07 SUBSTITUTIONS**

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 calendar days prior to time required for preparation and review of related submittals.
  - 1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
    - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - b. Substitution request is fully documented and properly submitted.
    - c. Requested substitution will not adversely affect Contractor's construction schedule.
    - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
    - e. Requested substitution is compatible with other portions of the Work.
    - f. Requested substitution has been coordinated with other portions of the Work.
    - g. Requested substitution provides specified warranty.

- h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Not allowed unless otherwise indicated.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 25 00**

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**SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. RFIs.
  - 4. Digital project management procedures.
  - 5. Web-based Project management software package.
  - 6. Project meetings.
- B. Related Requirements:
  - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

**1.03 DEFINITIONS**

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

**1.04 INFORMATIONAL SUBMITTALS**

- A. Subcontract List: Prepare and submit within 15 calendar days of Notice to Proceed a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 calendar days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
  - 1. Post copies of list in Project meeting room, in temporary field office, in web-based Project software directory, and in prominent location in built facility. Always keep the list current.
- C. Construction Schedule: Within 15 calendar days of Notice to Proceed submit construction schedule.
- D. Schedule of Value: Within 15 calendar days of Notice to Proceed submit Schedule of Values.

- E. Submittal Schedule: Within 15 calendar days of Notice to Proceed submit Submittal Schedule.

#### **1.05 GENERAL COORDINATION PROCEDURES**

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
  - 1. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of Contractor's construction schedule.
  - 2. Preparation of the schedule of values.
  - 3. Installation and removal of temporary facilities and controls.
  - 4. Delivery and processing of submittals.
  - 5. Progress meetings.
  - 6. Preinstallation conferences.
  - 7. Project closeout activities.
  - 8. Startup and adjustment of systems.

#### **1.06 COORDINATION DRAWINGS**

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely indicated on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
  - 1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe the relationship of various systems and components.
    - b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - c. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
    - d. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
    - e. Indicate required installation sequences.
    - f. Indicate dimensions shown on Drawings. Specifically note dimensions that appear in conflict with submitted equipment and minimum clearance requirements. Provide alternative sketches to Architect indicating proposed

resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings where required to adequately represent the Work.
  2. Plenum Space: Indicate sub-framing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within plenums to accommodate layout of light fixtures and other components indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
  3. Mechanical Rooms: Provide coordination drawings for mechanical rooms, showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
  4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
  5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
  6. Mechanical and Plumbing Work: Show the following:
    - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
    - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts, and electrical distribution equipment.
    - c. Fire-rated enclosures around ductwork.
  7. Electrical Work: Show the following:
    - a. Runs of vertical and horizontal conduit 1-1/4 inches (32 mm) in diameter and larger.
    - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
    - c. Panel board, switchboard, switchgear, transformer, busway, generator, and motor-control center locations.
    - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
  8. Fire-Protection System: Show the following:
    - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
  9. Review: Architect will review coordination drawings to confirm that, in general, the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If the Architect determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect will inform Contractor, who shall make suitable modifications and resubmit.
  10. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 013300 "Submittal Procedures."
- C. Coordination Drawing Process: Prepare coordination drawings in the following manner:
1. Schedule submittal and review of Fire Sprinkler, Plumbing, HVAC, and Electrical Shop Drawings to make required changes prior to preparation of coordination drawings.

2. Commence routing of coordination drawing files with HVAC Installer, who will provide drawing plan files denoting approved ductwork. HVAC Installer will locate ductwork and piping on a single layer, using orange color. Forward drawings to Plumbing Installer.
3. Plumbing Installer will locate plumbing and equipment on a single layer, using blue color.
4. The Fire Sprinkler Installer will locate piping and equipment, using red color. Fire Sprinkler Installer shall forward drawing files to Electrical Installer.
5. Electrical Installer will indicate service and feeder conduit runs and equipment in green color. Electrical Installer shall forward drawing files to Communications and Electronic Safety and Security Installer.
6. Communications and Electronic Safety and Security Installer will indicate cable trays and cabling runs and equipment in purple color. Communications and Electronic Safety and Security Installer shall forward completed drawing files to Contractor.
7. Contractor shall perform the final coordination review. As each coordination drawing is completed, Contractor will meet with Architect to review and resolve conflicts on the coordination drawings.
  - a. Perform three-dimensional component conflict analysis as part of preparation of coordination drawings. Resolve component conflicts prior to submittal. Indicate where conflict resolution requires modification of design requirements by Architect.

#### **1.07 REQUEST FOR INFORMATION (RFI)**

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
  1. Architect will return without response those RFIs submitted to Architect by other entities controlled by Contractor.
  2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
  1. Project name.
  2. Owner name.
  3. Owner's Project number.
  4. Name of Architect and Construction Manager.
  5. Architect's Project number.
  6. Date.
  7. Name of Contractor.
  8. RFI number, numbered sequentially.
  9. RFI subject.
  10. Specification Section number and title and related paragraphs, as appropriate.
  11. Drawing number and detail references, as appropriate.
  12. Field dimensions and conditions, as appropriate.
  13. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  14. Contractor's signature.
  15. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.



- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
  - 1. Attachments shall be electronic files in PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow five calendar days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  - 1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt by Architect of additional information.
  - 3. Architect's action on RFIs that may result in a change to the Contract Time, or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 5 calendar days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Use software log that is part of web-based Project management software. Software log with not less than the following:
  - 1. Project name.
  - 2. Name and address of Contractor.
  - 3. Name and address of Architect.
  - 4. RFI number, including RFIs that were returned without action or withdrawn.
  - 5. RFI description.
  - 6. Date the RFI was submitted.
  - 7. Date Architect's response was received.
  - 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within three calendar days if Contractor disagrees with response.

### 1.08 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
  - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of the date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times a minimum of seven calendar days prior to meeting.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Contractor shall be responsible for conducting meetings and will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three calendar days of the meeting.

- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 calendar days after execution of the Agreement.
1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
  2. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Responsibilities and personnel assignments.
    - b. Tentative construction schedule.
    - c. Phasing.
    - d. Critical work sequencing and long lead items.
    - e. Designation of key personnel and their duties.
    - f. Lines of communications.
    - g. Use of web-based Project software.
    - h. Procedures for processing field decisions and Change Orders.
    - i. Procedures for RFIs.
    - j. Procedures for testing and inspecting.
    - k. Procedures for processing Applications for Payment.
    - l. Distribution of the Contract Documents.
    - m. Submittal procedures.
    - n. Sustainable design requirements.
    - o. Preparation of Record Documents.
    - p. Use of the premises and existing building.
    - q. Work restrictions.
    - r. Working hours.
    - s. Owner's occupancy requirements.
    - t. Responsibility for temporary facilities and controls.
    - u. Procedures for moisture and mold control.
    - v. Procedures for disruptions and shutdowns.
    - w. Construction waste management and recycling.
    - x. Parking availability.
    - y. Office, work, and storage areas.
    - z. Equipment deliveries and priorities.
    - aa. First aid.
    - bb. Security.
    - cc. Progress cleaning.
  3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at the Project site before each construction activity when required by other Sections and when required for coordination with other construction.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. (Select one or more) Advise Architect, Construction Manager, and Owner's Commissioning Authority of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the activity under consideration, including requirements for the following:
    - a. Contract Documents.

- b. Options.
  - c. Related RFIs.
  - d. Related Change Orders.
  - e. Purchases.
  - f. Deliveries.
  - g. Submittals.
  - h. Sustainable design requirements.
  - i. Review of mockups.
  - j. Possible conflicts.
  - k. Compatibility requirements.
  - l. Time schedules.
  - m. Weather limitations.
  - n. Manufacturer's written instructions.
  - o. Warranty requirements.
  - p. Compatibility of materials.
  - q. Acceptability of substrates.
  - r. Temporary facilities and controls.
  - s. Space and access limitations.
  - t. Regulations of authorities having jurisdiction.
  - u. Testing and inspecting requirements.
  - v. Installation procedures.
  - w. Coordination with other work.
  - x. Required performance results.
  - y. Protection of adjacent work.
  - z. Protection of construction and personnel.
3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to the performance of the Work and reconvene the conference at the earliest feasible date.
- D. Progress Meetings: Conduct progress meetings at biweekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.
  3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 1) Review schedule for next period.

- b. Review present and future needs of each entity present, including the following:
  - 1) Interface requirements.
  - 2) Sequence of operations.
  - 3) Status of submittals.
  - 4) Status of sustainable design documentation.
  - 5) Deliveries.
  - 6) Off-site fabrication.
  - 7) Access.
  - 8) Site use.
  - 9) Temporary facilities and controls.
  - 10) Progress cleaning.
  - 11) Quality and work standards.
  - 12) Status of correction of deficient items.
  - 13) Field observations.
  - 14) Status of RFIs.
  - 15) Status of Proposal Requests.
  - 16) Pending changes.
  - 17) Status of Change Orders.
  - 18) Pending claims and disputes.
  - 19) Documentation of information for payment requests.
- 4. Minutes: Contractor shall be responsible for conducting meeting and will record and distribute the meeting minutes to each party present and to parties requiring information.
  - a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.
- 5. Drawing Revision Log: Contractor to create and provide updates to drawing revision log. The log will be revised at each progress meeting and attached to the meeting minutes. Log is to include drawing number, current revision number, and date issued.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 31 00**

## SECTION 01 32 00 - CONSTRUCTION PROGRESS DOCUMENTATION

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Startup construction schedule.
  - 2. Contractor's Construction Schedule.
  - 3. Construction schedule updating reports.
  - 4. Daily construction reports.
  - 5. Material location reports.
  - 6. Site condition reports.
  - 7. Unusual event reports.
- B. Related Requirements:
  - 1. Section 014000 "Quality Requirements" for schedule of tests and inspections.

#### 1.03 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction Project. Activities included in a construction schedule consume time and resources.
  - 1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.
- B. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- C. Event: The starting or ending point of an activity.
- D. Float: The measure of leeway in starting and completing an activity.
  - 1. Float time is not for the exclusive use or benefit of either Owner or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
  - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the successor activity.
  - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.
- E. Resource Loading: The allocation of manpower and equipment necessary for completing an activity as scheduled.

#### 1.04 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
  - 1. Working electronic copy of schedule file.
  - 2. PDF file.
- B. Startup construction schedule.
  - 1. Submittal of startup construction schedule will not constitute approval of schedule of values for activities.
- C. Startup Network Diagram: Of size required to display entire network for entire construction period. Show logic ties for activities.

- D. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
  - 1. Submit a working digital copy of schedule, using software indicated, and labeled to comply with requirements for submittals.
- E. Construction Schedule Updating Reports: Submit with Applications for Payment.
- F. Daily Construction Reports: Submit at weekly intervals.
- G. Material Location Reports: Submit at monthly intervals.
- H. Site Condition Reports: Submit at time of discovery of differing conditions.
- I. Unusual Event Reports: Submit at time of unusual event.
- J. Qualification Data: For scheduling consultant.

#### **1.05 QUALITY ASSURANCE**

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Architect's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's Construction Schedule, including, but not limited to, the following:
  - 1. Review software limitations and content and format for reports.
  - 2. Verify availability of qualified personnel needed to develop and update schedule.
  - 3. Discuss constraints, including work stages interim milestones and partial Owner occupancy.
  - 4. Review delivery dates for Owner-furnished products.
  - 5. Review schedule for work of Owner's separate contracts.
  - 6. Review submittal requirements and procedures.
  - 7. Review time required for review of submittals and resubmittals.
  - 8. Review requirements for tests and inspections by independent testing and inspecting agencies.
  - 9. Review time required for Project closeout and Owner startup procedures, including commissioning activities.
  - 10. Review and finalize list of construction activities to be included in schedule.
  - 11. Review procedures for updating schedule.

#### **1.06 COORDINATION**

- A. Coordinate Contractor's Construction Schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from entities involved.
  - 2. Coordinate each construction activity in the network with other activities, and schedule them in proper sequence.

#### **1.07 CONTRACTOR'S CONSTRUCTION SCHEDULE**

- A. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each floor or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 14 calendar days, unless specifically allowed by Architect.

2. Temporary Facilities: Indicate start and completion dates for the following as applicable:
  - a. Securing of approvals and permits required for performance of the Work.
  - b. Temporary facilities.
  - c. Construction of mock-ups, prototypes and samples.
  - d. Owner interfaces and furnishing of items.
  - e. Interfaces with Separate Contracts.
  - f. Regulatory agency approvals.
  - g. Punch list.
3. Procurement Activities: Include procurement process activities for the following long lead-time items and major items, requiring a cycle of more than 60 calendar days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
4. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with submittal schedule.
5. Startup and Testing Time: Include no fewer than 15 calendar days for startup and testing.
6. Commissioning Time: Include no fewer than 15 calendar days for commissioning.
7. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
8. Punch List and Final Completion: Include not more than 30 calendar days for completion of punch list items and Final Completion.
- D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to; Notice to Proceed, Network Connection, Permanent Power, HVAC start-up, Test & Balance, Final Cleaning, Substantial Completion, and Final Completion.
- E. Four (4) Week look ahead Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:
  1. Unresolved issues.
  2. Unanswered Requests for Information.
  3. Rejected or unreturned submittals.
  4. Notations on returned submittals.
  5. Pending modifications affecting the Work and the Contract Time.
- F. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
  1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  3. As the Work progresses, indicate Final Completion percentage for each activity.
  4. During project site meetings, provide four week look ahead schedule indicating upcoming activities and durations.
- G. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule within 7 calendar days indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, equipment required to achieve compliance, and date by which recovery will be

- accomplished.
- H. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

#### **1.08 STARTUP CONSTRUCTION SCHEDULE**

- A. Gantt-Chart Schedule: Submit startup, horizontal, Gantt-chart-type construction schedule within seven calendar days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 90 calendar days of construction. Include skeleton diagram for the remainder of the Work and a cash requirement prediction based on indicated activities.

#### **1.09 GANTT-CHART SCHEDULE REQUIREMENTS**

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's Construction Schedule within 30 calendar days of the date established for the Notice to Proceed.
1. Base schedule on the startup construction schedule and additional information received since the start of Project.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.
- C. Contract Modifications: For each proposed contract modification concurrent with its submission, prepare a time-impact analysis using a network fragment to demonstrate the effect of the proposed change on the overall Project schedule.
- D. Initial Issue of Schedule: Prepare initial network diagram from a sorted activity list indicating straight "early start-total float." Identify critical activities. Prepare tabulated reports showing the following:
1. Contractor or subcontractor and the Work or activity.
  2. Description of activity.
  3. Main events of activity.
  4. Immediately preceding and succeeding activities.
  5. Early and late start dates.
  6. Early and late finish dates.
  7. Activity duration in workdays.
  8. Total float or slack time.
  9. Average size of workforce.
  10. Dollar value of activity (coordinated with the schedule of values).
- E. Schedule Updating: Concurrent with revising schedule, prepare tabulated reports showing the following:
1. Identification of activities that have changed.
  2. Changes in early and late start dates.
  3. Changes in early and late finish dates.
  4. Changes in activity durations in workdays.
  5. Changes in the critical path.
  6. Changes in total float or slack time.



## 7. Changes in the Contract Time.

**1.10 REPORTS**

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
  2. List of separate contractors at Project site.
  3. Approximate count of personnel at Project site.
  4. Equipment at Project site.
  5. Material deliveries.
  6. High and low temperatures and general weather conditions, including presence of rain or snow.
  7. Testing and inspection.
  8. Accidents.
  9. Meetings and significant decisions.
  10. Unusual events.
  11. Stoppages, delays, shortages, and losses.
  12. Meter readings and similar recordings.
  13. Emergency procedures.
  14. Orders and requests of authorities having jurisdiction.
  15. Change Orders received and implemented.
  16. Construction Change Directives received and implemented.
  17. Services connected and disconnected.
  18. Equipment or system tests and startups.
  19. Partial completions and occupancies.
  20. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at the Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site. Indicate the following categories for stored materials:
1. Material stored prior to previous report and remaining in storage.
  2. Material stored prior to previous report and since removed from storage and installed.
  3. Material stored following previous report and remaining in storage.
- C. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.
- D. Unusual Event Reports: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, responses by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.
1. Submit unusual event reports directly to Owner within one calendar day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION (NOT USED)****END OF SECTION 01 32 00**

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## SECTION 01 33 00 - SUBMITTAL PROCEDURES

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes:
  - 1. Submittal schedule requirements.
  - 2. Administrative and procedural requirements for submittals.
- B. Related Requirements:
  - 1. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.
  - 2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
  - 3. Section 014000 "Quality Requirements" for submitting test and inspection reports, and schedule of tests and inspections.
  - 4. Section 017700 "Closeout Procedures" for submitting closeout submittals and maintenance material submittals.
  - 5. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
  - 6. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
  - 7. Section 017900 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

#### 1.02 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

#### 1.03 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.
  - 1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
  - 2. Initial Submittal Schedule: Submit concurrently with startup construction schedule. Include submittals required during the first 60 calendar days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
  - 3. Final Submittal Schedule: Submit concurrently with the first complete submittal of Contractor's construction schedule.
    - a. Submit revised submittal schedule as required to reflect changes in current status and timing for submittals.
  - 4. Format: Arrange the following information in a tabular format:
    - a. Scheduled date for first submittal.
    - b. Specification Section number and title.

- c. Submittal Category: Action; informational.
- d. Name of subcontractor.
- e. Description of the Work covered.
- f. Scheduled date for Architect's final release or approval.
- g. Scheduled dates for purchasing (required for long lead items).
- h. Scheduled dates for installation.

#### **1.04 SUBMITTAL FORMATS**

- A. Submittal Information: Include the following information in each submittal:
  - 1. Project name.
  - 2. Date.
  - 3. Name of Architect.
  - 4. Name of Contractor.
  - 5. Name of firm or entity that prepared submittal.
  - 6. Names of subcontractor, manufacturer, and supplier.
  - 7. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier and alphanumeric suffix for resubmittals.
  - 8. Category and type of submittal.
  - 9. Submittal purpose and description.
  - 10. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
  - 11. Drawing number and detail references, as appropriate.
  - 12. Indication of full or partial submittal.
  - 13. Location(s) where product is to be installed, as appropriate.
  - 14. Other necessary identification.
  - 15. Remarks.
  - 16. Signature of transmitter.
- B. Options: Identify options requiring selection by Architect.
- C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Architect and Construction Manager on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.
- D. Record Copy Paper Submittals:
  - 1. Following the approval of electronic submittals, submit full copies of all submittals in paper form for each submitted and approved submittal. Submit two copies, no hard copies will be returned to the Contractor.
  - 2. Place a permanent label or title block on each submittal item for identification; include name of firm or entity that prepared submittal.

#### **1.05 SUBMITTAL PROCEDURES**

- A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
  - 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.

4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, so processing will not be delayed because of need to review submittals concurrently for coordination.
  - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
  1. Initial Review: Allow 15 calendar days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 10 calendar days for review of each resubmittal.
  4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 calendar days for initial review of each submittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block, and clearly indicate extent of revision.
  3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

#### **1.06 SUBMITTAL REQUIREMENTS**

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's catalog cuts.
    - b. Manufacturer's product specifications.
    - c. Standard color charts.
    - d. Statement of compliance with specified referenced standards.
    - e. Testing by recognized testing agency.
    - f. Application of testing agency labels and seals.
    - g. Notation of coordination requirements.
    - h. Availability and delivery time information.
  4. For equipment, include the following in addition to the above, as applicable:
    - a. Wiring diagrams that show factory-installed wiring.
    - b. Printed performance curves.
    - c. Operational range diagrams.

- d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
5. Submit Product Data before Shop Drawings, and before or concurrently with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Identification of products.
    - b. Schedules.
    - c. Compliance with specified standards.
    - d. Notation of coordination requirements.
    - e. Notation of dimensions established by field measurement.
    - f. Relationship and attachment to adjoining construction clearly indicated.
    - g. Seal and signature of professional engineer if specified.
  2. Paper Sheet Size (For Record Copy Paper Submittals): Except for templates, patterns, and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm), but no larger than 30 by 42 inches (750 by 1067 mm).
- C. Samples: Submit Samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.
  1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
  2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
    - a. Project name and submittal number.
    - b. Generic description of Sample.
    - c. Product name and name of manufacturer.
    - d. Sample source.
    - e. Number and title of applicable Specification Section.
    - f. Specification paragraph number and generic name of each item.
  3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
    - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
  4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units, showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
  5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or

fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

- a. Number of Samples: Submit two sets of Samples. Architect will retain one Sample set; remainder will be returned. Mark up and retain one returned Sample set as a project record Sample.
  - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
  - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
  2. Manufacturer and product name, and model number if applicable.
  3. Number and name of room or space.
  4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
  1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
  2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
  4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
  5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
  6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.
- H. Test and Research Reports:
  1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations

- for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
  3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
  4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
  5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
  6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
    - a. Name of evaluation organization.
    - b. Date of evaluation.
    - c. Time period when report is in effect.
    - d. Product and manufacturers' names.
    - e. Description of product.
    - f. Test procedures and results.
    - g. Limitations of use.

#### **1.07 DELEGATED DESIGN SERVICES**

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

#### **1.08 CONTRACTOR'S REVIEW**

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
  1. Architect will not review submittals received from Contractor that do not have Contractor's review and approval.



**1.09 ARCHITECT'S REVIEW**

- A. Action Submittals: Architect and Construction Manager will review each submittal, indicate corrections or revisions required, and return.
  - 1. PDF Submittals: Architect will indicate, via markup on each submittal, the appropriate action.
- B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Architect will return without review submittals received from sources other than Contractor.
- F. Submittals not required by the Contract Documents will be returned by Architect without action.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 33 00**

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## SECTION 01 40 00 - QUALITY REQUIREMENTS

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

#### 1.03 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced," unless otherwise further described, means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, subcontractor, or sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
  - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).
- D. Mockups: Physical assemblies of portions of the Work constructed to establish the standard by which the Work will be judged. Mockups are not Samples.
  - 1. Mockups are used for one or more of the following:
    - a. Verify selections made under Sample submittals.
    - b. Demonstrate aesthetic effects.
    - c. Demonstrate the qualities of products and workmanship.
    - d. Demonstrate successful installation of interfaces between components and systems.
    - e. Perform preconstruction testing to determine system performance.
  - 2. Product Mockups: Mockups that may include multiple products, materials, or systems specified in a single Section.
  - 3. In-Place Mockups: Mockups constructed on-site in their actual final location as part of permanent construction.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or

- compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.
- F. **Product Tests:** Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
  - G. **Source Quality-Control Tests and Inspections:** Tests and inspections that are performed at the source (e.g., plant, mill, factory, or shop).
  - H. **Testing Agency:** An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" has the same meaning as the term "testing agency."
  - I. **Quality-Assurance Services:** Activities, actions, and procedures performed before and during execution of the Work, to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
  - J. **Quality-Control Services:** Tests, inspections, procedures, and related actions during and after execution of the Work, to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Architect or Owner's Construction Manager.

#### **1.04 DELEGATED DESIGN SERVICES**

- A. **Performance and Design Criteria:** Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
  - 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. **Delegated Design Services Statement:** Submit a statement signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional, indicating that the products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

#### **1.05 CONFLICTING REQUIREMENTS**

- A. **Conflicting Standards and Other Requirements:** If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Owner or Architect regarding the conflict and obtain clarification prior to proceeding with the Work. Owner shall provide final direction to the Contractor on its preference and Contractor shall not be entitled to additional fee as long as the one of the options creating the discrepancy was chosen. Refer conflicting requirements that are different, but apparently equal, to Architect for clarification before proceeding.
- B. **Minimum Quantity or Quality Levels:** The quantity or quality level shown or specified is the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

#### **1.06 ACTION SUBMITTALS**

- A. **Mockup Shop Drawings:**
  - 1. Include plans, sections, elevations, and details, indicating materials and size of mockup construction.

2. Indicate manufacturer and model number of individual components.
3. Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

### 1.07 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:
  1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
  2. Primary wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  1. Specification Section number and title.
  2. Entity responsible for performing tests and inspections.
  3. Description of test and inspection.
  4. Identification of applicable standards.
  5. Identification of test and inspection methods.
  6. Number of tests and inspections required.
  7. Time schedule or time span for tests and inspections.
  8. Requirements for obtaining samples.
  9. Unique characteristics of each quality-control service.
- F. Reports: Prepare and submit certified written reports and documents as specified.
- G. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

### 1.08 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within 10 calendar days of Notice to Proceed, and not less than five calendar days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities and to coordinate Owner's quality-assurance and quality-control activities. Coordinate with Contractor's Construction Schedule.
- B. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- C. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:
  1. Contractor-performed tests and inspections, including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections. Distinguish source quality-control tests and inspections from field quality-control tests and inspections.
  2. Special inspections required by authorities having jurisdiction and indicated on the Statement of Special Inspections.

3. Owner-performed tests and inspections indicated in the Contract Documents.
- D. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring the Work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- E. Monitoring and Documentation: Maintain testing and inspection reports, including log of approved and rejected results. Include Work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming Work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

#### **1.09 REPORTS AND DOCUMENTS**

- A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:
  1. Date of issue.
  2. Project title and number.
  3. Name, address, telephone number, and email address of testing agency.
  4. Dates and locations of samples and tests or inspections.
  5. Names of individuals making tests and inspections.
  6. Description of the Work and test and inspection method.
  7. Identification of product and Specification Section.
  8. Complete test or inspection data.
  9. Test and inspection results and an interpretation of test results.
  10. Record of temperature and weather conditions at time of sample-taking and testing and inspection.
  11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
  12. Name and signature of laboratory inspector.
  13. Recommendations on retesting and reinspecting.
- B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
  1. Name, address, telephone number, and email address of technical representative making report.
  2. Statement on condition of substrates and their acceptability for installation of product.
  3. Statement that products at Project site comply with requirements.
  4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  6. Statement of whether conditions, products, and installation will affect warranty.
  7. Other required items indicated in individual Specification Sections.
- C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:
  1. Name, address, telephone number, and email address of factory-authorized service representative making report.
  2. Statement that equipment complies with requirements.
  3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  4. Statement of whether conditions, products, and installation will affect warranty.

5. Other required items indicated in individual Specification Sections.

#### 1.10 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce the required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce the required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that is similar in material, design, and extent to those indicated for this Project.
- F. Specialists: Certain Specification Sections require that specific construction activities be performed by entities who are recognized experts in those operations. Specialists will satisfy qualification requirements indicated and engage in the activities indicated.
  - 1. Requirements of authorities having jurisdiction supersede requirements for specialists.
- G. Testing and Inspecting Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented in accordance with ASTM E329, and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.
- H. Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installations of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - 1. Build mockups of size indicated.
  - 2. Build mockups in location indicated or, if not indicated, as directed by Architect.
  - 3. Notify Architect seven calendar days in advance of dates and times when mockups will be constructed.
  - 4. Employ supervisory personnel who will oversee mockup construction. Employ workers who will be employed to perform same tasks during the construction at Project.
  - 5. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 6. Obtain Architect's approval of mockups before starting corresponding Work, fabrication, or construction.

- a. Allow seven calendar days for initial review and each re-review of each mockup.
7. Promptly correct unsatisfactory conditions noted by Architect's preliminary review, to the satisfaction of the Architect, before completion of final mockup.
8. Approval of mockups by the Architect does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
9. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
10. Demolish and remove mockups when directed unless otherwise indicated.

### 1.11 QUALITY CONTROL

- A. Contractor Responsibilities: Tests and inspections are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
  1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  2. Engage a qualified testing agency to perform quality-control services.
    - a. Contractor will not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  3. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspection will be performed.
  4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  5. Testing and inspection requested by the Contractor and not required by the Contract Documents are Contractor's responsibility.
  6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- C. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  1. Notify Owner promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the locations from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections, and state in each report whether tested and inspected Work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform duties of Contractor.
- D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 013300 "Submittal Procedures."
- E. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences,



- examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- F. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspection equipment at Project site.
- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.
- H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Coordinate and submit concurrently with Contractor's Construction Schedule. Update and submit with each Application for Payment.
1. Schedule Contents: Include tests, inspections, and quality-control services, including Contractor- and Owner-retained services, commissioning activities, and other Project-required services paid for by other entities.
  2. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

#### **1.12 SPECIAL TESTS AND INSPECTIONS**

- A. Special Tests and Inspections: Owner may (at its sole discretion) engage a qualified special inspector to conduct special tests and inspections, as indicated in the Statement of Special Inspections listed on the drawings, and as follows:
1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures, and reviewing the completeness and adequacy of those procedures to perform the Work.
  2. Notifying Architect and Owner promptly of irregularities and deficiencies observed in the Work during performance of its services.
  3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
  4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  5. Interpreting tests and inspections, and stating in each report whether tested and inspected Work complies with or deviates from the Contract Documents.
  6. Retesting and reinspecting corrected Work.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION****3.01 TEST AND INSPECTION LOG**

- A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:
  - 1. The date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. The date test or inspection results were transmitted to Architect.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Architect's authorities' having jurisdiction reference during normal working hours.
  - 1. Submit log at Project closeout as part of Project Record Documents.

**3.02 REPAIR AND PROTECTION**

- A. General: On completion of testing, inspection, sample-taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Provide materials and comply with installation requirements specified in other Specification Sections or match existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Section 017300 "Execution."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are the Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

**END OF SECTION 01 40 00**

## SECTION 01 42 00 - REFERENCES

### PART 1 GENERAL

#### 1.01 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Architect's action on Contractor's submittals, applications, and requests, "approved" is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Unload, temporarily store, unpack, assemble, erect, place, anchor, apply, work to dimension, finish, cure, protect, clean, and similar operations at Project site.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

#### 1.02 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
  - 1. For standards referenced by applicable building codes, comply with dates of standards as listed in building codes.
- C. Copies of Standards: Each entity engaged in construction on a Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source.

#### 1.03 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale's "Encyclopedia of Associations: National Organizations of the U.S." or in Columbia Books' "National Trade & Professional Associations of the United States."
- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. This information is believed to be accurate as of the date of the Contract Documents.
  - 1. ICC - International Code Council; [www.iccsafe.org](http://www.iccsafe.org).
  - 2. ICC-ES - ICC Evaluation Service, LLC; [www.icc-es.org](http://www.icc-es.org).

- C. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. This information is subject to change and is believed to be accurate as of the date of the Contract Documents.
1. CFR - Code of Federal Regulations; Available from Government Printing Office; [www.govinfo.gov](http://www.govinfo.gov).
  2. DOD - Department of Defense; Military Specifications and Standards; Available from DLA Document Services; [www.quicksearch.dla.mil](http://www.quicksearch.dla.mil).
  3. DSCC - Defense Supply Center Columbus; (See FS).
  4. FED-STD - Federal Standard; (See FS).
  5. FS - Federal Specification; Available from DLA Document Services; [www.quicksearch.dla.mil](http://www.quicksearch.dla.mil).
    - a. Available from Defense Standardization Program; [www.dsp.dla.mil](http://www.dsp.dla.mil).
    - b. Available from General Services Administration; [www.gsa.gov](http://www.gsa.gov).
    - c. Available from National Institute of Building Sciences/Whole Building Design Guide; [www.wbdg.org](http://www.wbdg.org).
  6. MILSPEC - Military Specification and Standards; (See DOD).
  7. USAB - United States Access Board; [www.access-board.gov](http://www.access-board.gov).
  8. USATBCB - U.S. Architectural & Transportation Barriers Compliance Board; (See USAB).

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 42 00**

**SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 01 1000 "Summary" for work restrictions and limitations on utility interruptions.

**1.03 USE CHARGES**

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. The contractor shall, at its expense, make all arrangements necessary to secure the availability of and maintain all temporary utilities required to construct and operate the Contractor's Work as required by the Contract Documents. This includes legal sketches and descriptions for easement as well as record drawings requirements required by utility companies.
- C. The contractor shall be responsible for all costs or fees associated with temporary or permanent utilities, with the exception of the permanent utility connection fees, until Final Completion or Owner Acceptance/Occupancy, whichever comes first.
- D. The contractor shall be responsible for providing and installing all provisions required by utility companies including but not limited to, transformer pads, service raceways, bollards, etc.
- E. Sewer Service: If no existing service exists, pay sewer-service use charges for sewer usage by all entities for construction operations.
- F. Water Service: If no existing service exists, pay water-service use charges for water used by all entities for construction operations.
- G. Electric Power Service: If no existing service exists, pay electric-power-service use charges for electricity used by all entities for construction operations.

**1.04 INFORMATIONAL SUBMITTALS**

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Implementation and Termination Schedule: Within 15 calendar days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.
- C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- E. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject

- to water absorption or water damage.
1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.
  2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
  3. Indicate methods to be used to avoid trapping water in finished work.
- F. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Include the following:
1. Locations of dust-control partitions at each phase of work.
  2. HVAC system isolation schematic drawing.
  3. Location of proposed air-filtration system discharge.
  4. Waste-handling procedures.
  5. Other dust-control measures.
- G. Noise and Vibration Control Plan: Identify construction activities that may impact the occupancy and use of existing spaces within the building or adjacent existing buildings, whether occupied by others, or occupied by the Owner. Include the following:
1. Methods used to meet the goals and requirements of the Owner.
  2. Concrete cutting method(s) to be used.
  3. Location of construction devices on the site.
  4. Show compliance with the use and maintenance of quiet construction devices for the duration of the Project.
  5. Indicate activities that may disturb building occupants and that are planned to be performed during non-standard working hours as coordinated with the Owner.
  6. Indicate locations of sensitive [research] [patient] [equipment] areas or other areas requiring special attention as identified by Owner. Indicate means for complying with Owner's requirements.

### 1.05 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

### 1.06 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

## PART 2 PRODUCTS

### 2.01 MATERIALS

- A. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 0.148-inch- (3.8-mm-) thick, galvanized-steel, chain-link fabric fencing; minimum 6 feet (1.8 m) high with galvanized-steel pipe posts; minimum 2-3/8-inch- (60-mm-) OD line posts and 2-7/8-inch- (73-mm-) OD corner and pull posts, with 1-5/8-inch- (42-mm-) OD top and bottom rails. Provide galvanized-steel bases for supporting posts.

- B. Fencing Windscreen Privacy Screen: Polyester fabric scrim with grommets for attachment to chain-link fence, sized to height of fence, in color selected by Architect from manufacturer's standard colors.
- C. Insulation: Unfaced mineral-fiber blanket, manufactured from glass, slag wool, or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively.

## 2.02 TEMPORARY FACILITIES

- A. Field Offices: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading. The Field Office shall include a conference room capable of holding meetings with a minimum of 10 people. Field office to include table & chairs. The contractor shall have the Field Office professionally cleaned a minimum of one time per months.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
  - 1. Store combustible materials apart from building.

## 2.03 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Unless the Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
  - 1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
  - 2. Heating, Cooling, and Dehumidifying Units: Listed and labeled for type of fuel being consumed, by a qualified testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
  - 3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return-air grille in system and remove at end of construction. and clean HVAC system as required in Section 017700 "Closeout Procedures."
- C. Air-Filtration Units: Primary and secondary HEPA-filter-equipped portable units with four-stage filtration. Provide single switch for emergency shutoff. Configure to run continuously.

## PART 3 EXECUTION

### 3.01 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
  - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

### 3.02 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
  - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.

1. Prior to commencing work, isolate the HVAC system in area where work is to be performed according to coordination drawings.
  - a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
  - b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.

### **3.03 TEMPORARY UTILITY INSTALLATION**

- A. General: Install temporary service or connect to existing service.
  1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.
  1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.
- C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.
- D. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for the use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
  1. Use of Permanent Toilets: Use of Owner's existing or new toilet facilities is not permitted.
- E. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
  1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to the level required to allow installation or application of finishes and their proper curing or drying.
- F. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner. If there is no available power from Owner, then Contractor is responsible to obtain power service. Any costs for power are to be included in Contractor's bid.
- G. Electric Power Service: Provide electric power service and distribution system of sufficient size, capacity, and power characteristics required for construction operations. If there is no available power from Owner, then Contractor is responsible to obtain power service. Any costs for power are to be included in Contractor's bid.
  1. Install electric power service overhead unless otherwise indicated.
  2. Connect temporary service to Owner's existing power source, as directed by Owner.
- H. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  1. Install and operate temporary lighting that fulfills security and protection requirements without operating the entire system.
- I. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install WiFi cell phone access equipment and one



land-based telephone line(s) for each field office.

1. At each telephone, post a list of important telephone numbers.
  - a. Police and fire departments.
  - b. Ambulance service.
  - c. Contractor's home office.
  - d. Contractor's emergency after-hours telephone number.
  - e. Architect's office.
  - f. Construction Manager's home office.
  - g. Engineers' offices.
  - h. Owner's office.
  - i. Principal subcontractors' field and home offices.
- J. Electronic Communication Service: Provide secure WiFi wireless connection to internet with provisions for access by Architect and Owner.

### 3.04 SUPPORT FACILITIES INSTALLATION

- A. Comply with the following:
  1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet (9 m) of building lines that is noncombustible in accordance with ASTM E136. Comply with NFPA 241.
  2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Temporary Roads and Paved Areas: Construct and maintain temporary roads and paved areas adequate for construction operations. Locate temporary roads and paved areas as indicated on Drawings.
  1. Provide dust-control treatment that is nonpolluting and nontracking. Reapply treatment as required to minimize dust.
- C. Temporary Use of Planned Permanent Roads and Paved Areas: Locate temporary roads and paved areas in same location as permanent roads and paved areas. Construct and maintain temporary roads and paved areas adequate for construction operations. Extending temporary roads and paved areas, within construction limits indicated, as necessary for construction operations.
  1. Coordinate elevations of temporary roads and paved areas with permanent roads and paved areas.
  2. Prepare subgrade and install subbase and base for temporary roads and paved areas in accordance with Section 312000 "Earth Moving."
  3. Recondition base after temporary use, including removing contaminated material, regrading, proof rolling, compacting, and testing.
  4. Delay installation of final course of permanent hot-mix asphalt pavement until immediately before Substantial Completion. Repair hot-mix asphalt base-course pavement before installation of final course in accordance with Section 321216 "Asphalt Paving."
- D. Traffic Controls: Comply with requirements of authorities having jurisdiction.
  1. Protect existing site improvements to remain, including curbs, pavement, and utilities.
  2. Maintain access for fire-fighting equipment and access to fire hydrants.
- E. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- F. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- G. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
- H. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  1. Identification Signs: Provide Project identification signs as indicated on Drawings.
  2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
    - a. Provide temporary, directional signs for construction personnel and visitors.
  3. Maintain and touch up signs, so they are legible at all times.
- I. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

### **3.05 SECURITY AND PROTECTION FACILITIES INSTALLATION**

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
  1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
  1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
  1. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross tree- or plant-protection zones.
  2. Inspect, repair, and maintain erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
  3. Clean, repair, and restore adjoining properties and roads affected by erosion and sedimentation from Project site during the course of Project.
  4. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.
- D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.
- F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals, so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using materials approved by authorities having jurisdiction.
- G. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
  1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.

2. Maintain security by limiting the number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- J. Temporary Egress: Provide temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction. Provide signage directing occupants to temporary egress.
- K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
  1. Where heating or cooling is needed and permanent enclosure is incomplete, insulate temporary enclosures.
- L. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
  1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
  2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition in accordance with requirements of authorities having jurisdiction.
  3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
  4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign, stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

### **3.06 MOISTURE AND MOLD CONTROL**

- A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.
- B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
  1. Protect porous materials from water damage.
  2. Protect stored and installed material from flowing or standing water.
  3. Keep porous and organic materials from coming into prolonged contact with concrete.
  4. Remove standing water from decks.
  5. Keep deck openings covered or dammed.
- C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
  1. Do not load or install drywall or other porous materials or components, or items with high organic content, into a partially enclosed building.
  2. Keep interior spaces reasonably clean and protected from water damage.
  3. Periodically collect and remove waste containing cellulose or other organic matter.
  4. Discard or replace water-damaged material.

5. Do not install material that is wet.
  6. Discard and replace stored or installed material that begins to grow mold.
  7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.
- D. Controlled Construction Period: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:
1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
  2. Use temporary or permanent HVAC system to control humidity within ranges specified for installed and stored materials.
  3. Comply with manufacturer's written instructions for temperature, relative humidity, and exposure to water limits.
    - a. Hygroscopic materials that may support mold growth, including wood and gypsum-based products, that become wet during the course of construction and remain wet for 48 hours are considered defective and require replacing.
    - b. Measure moisture content of materials that have been exposed to moisture during construction operations or after installation. Record readings beginning at time of exposure and continuing daily for 48 hours. Identify materials containing moisture levels higher than allowed. Report findings in writing to Architect.
    - c. Remove and replace materials that cannot be completely restored to their manufactured moisture level within 48 hours.

### **3.07 OPERATION, TERMINATION, AND REMOVAL**

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.
- D. Termination and Removal: Remove each temporary facility when the need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  1. Materials and facilities that constitute temporary facilities are property of Contractor. The owner reserves the right to take possession of Project identification signs.
  2. Remove temporary roads and paved areas not intended for or acceptable for integration into permanent construction. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs, and sidewalks at temporary entrances, as required by authorities having jurisdiction.
  3. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

### **END OF SECTION 01 50 00**

## SECTION 01 60 00 - PRODUCT REQUIREMENTS

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
  - 1. Section 01 1000 "Summary" for Contractor requirements related to Owner-furnished products.
  - 2. Section 01 2100 "Allowances" for products selected under an allowance.
  - 3. Section 01 2300 "Alternates" for products selected under an alternate.
  - 4. Section 01 2500 "Substitution Procedures" for requests for substitutions.
  - 5. Section 01 4200 "References" for applicable industry standards for products specified.
  - 6. Section 01 770 "Closeout Procedures" for submitting warranties.

#### 1.03 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
  - 3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.
  - 1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification. Manufacturer's published attributes and characteristics of basis-of-design product also establish salient characteristics of products for purposes of evaluating comparable products.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual

Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.

- D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
  - 1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
  - 2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.
- E. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 013300 "Submittal Procedures."
- F. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.

#### **1.04 QUALITY ASSURANCE**

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
- B. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.
  - 1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.
  - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service- or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:
    - a. Name of product and manufacturer.
    - b. Model and serial number.
    - c. Capacity.
    - d. Speed.
    - e. Ratings.
  - 3. See individual identification Sections in Divisions 21, 22, 23, and 26 for additional equipment identification requirements.

#### **1.05 COORDINATION**

- A. Modify or adjust affected work as necessary to integrate work of approved comparable products and approved substitutions.

#### **1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  4. Inspect products on delivery to determine compliance with the Contract Documents and that products are undamaged and properly protected.
- C. Storage:
1. Provide a secure location and enclosure at Project site for storage of materials and equipment.
  2. Store products to allow for inspection and measurement of quantity or counting of units.
  3. Store materials in a manner that will not endanger Project structure.
  4. Store products that are subject to damage by the elements under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation and with adequate protection from wind.
  5. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
  6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
  7. Protect stored products from damage and liquids from freezing.
  8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

#### **1.07 PRODUCT WARRANTIES**

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
  2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
  3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

### **PART 2 PRODUCTS**

#### **2.01 PRODUCT SELECTION PROCEDURES**

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.

3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Architect will make selection.
  5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
  6. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
    - a. Submit additional documentation required by Architect in order to establish equivalency of proposed products. Unless otherwise indicated, evaluation of "or equal" product status is by the Architect, whose determination is final.
- B. Product Selection Procedures:
1. Sole Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - a. Sole product may be indicated by the phrase "Subject to compliance with requirements, provide the following."
  2. Sole Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
    - a. Sole manufacturer/source may be indicated by the phrase "Subject to compliance with requirements, provide products by the following."
  3. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
    - a. Limited list of products may be indicated by the phrase "Subject to compliance with requirements, provide one of the following."
  4. Non-Limited List of Products: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed or an unnamed product that complies with requirements.
    - a. Non-limited list of products is indicated by the phrase "Subject to compliance with requirements, available products that may be incorporated in the Work include, but are not limited to, the following."
    - b. Provision of an unnamed product is not considered a substitution, if the product complies with requirements.
  5. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will be considered.
    - a. Limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, provide products by one of the following."
  6. Non-Limited List of Manufacturers: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed or a product by an unnamed manufacturer that complies with requirements.
    - a. Non-limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, available manufacturers whose products may be incorporated in the Work include, but are not limited to, the following."
    - b. Provision of products of an unnamed manufacturer is not considered a substitution, if the product complies with requirements.



7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
  - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.
- C. Visual Matching Specification: Where Specifications require the phrase "match Architect's sample," provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
  1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.
- E. Sustainable Product Selection: Where Specifications require product to meet sustainable product characteristics, select products complying with indicated requirements. Comply with requirements in Division 01 sustainability requirements Section and individual Specification Sections.
  1. Select products for which sustainable design documentation submittals are available from manufacturer.

## 2.02 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with the following requirements:
  1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
  2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
  3. Evidence that proposed product provides specified warranty.
  4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
  5. Samples, if requested.
- B. Architect's Action on Comparable Products Submittal: If necessary, Architect will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."
  1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
  2. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.
- C. Submittal Requirements, Two-Step Process: Approval by the Architect of Contractor's request for use of comparable product is not intended to satisfy other submittal

requirements. Comply with specified submittal requirements.

- D. Submittal Requirements, Single-Step Process: When acceptable to Architect, incorporate specified submittal requirements of individual Specification Section in combined submittal for comparable products. Approval by the Architect of Contractor's request for use of comparable product and of individual submittal requirements will also satisfy other submittal requirements.

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 60 00**

## SECTION 01 73 00 - EXECUTION

### PART 1 GENERAL

#### 1.01 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. Installation of the Work.
  - 4. Cutting and patching.
  - 5. Coordination of Owner's portion of the Work.
  - 6. Coordination of Owner-installed products.
  - 7. Progress cleaning.
  - 8. Starting and adjusting.
  - 9. Protection of installed construction.
  - 10. Correction of the Work.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting surveys.
  - 2. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

#### 1.02 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

#### 1.03 PREINSTALLATION MEETINGS

- A. Cutting and Patching Conference: Conduct conference at Project site.
  - 1. Prior to commencing work requiring cutting and patching, review extent of cutting and patching anticipated and examine procedures for ensuring satisfactory result from cutting and patching work. Inform Architect of scheduled meeting. Require representatives of each entity directly concerned with cutting and patching to attend, including the following:
    - a. Contractor's superintendent.
    - b. Trade supervisor responsible for cutting operations.
    - c. Trade supervisor(s) responsible for patching of each type of substrate.
    - d. Mechanical, electrical, and utilities subcontractors' supervisors, to the extent each trade is affected by cutting and patching operations.
  - 2. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.
- B. Layout Conference: Conduct conference at Project site.
  - 1. Prior to establishing layout of new and existing perimeter and structural column grid(s), review building location requirements. Review benchmark, control point, and layout and dimension requirements. Inform Architect of scheduled meeting. Require representatives of each entity directly concerned with Project layout to attend, including the following:
    - a. Contractor's superintendent.
    - b. Professional surveyor responsible for performing Project surveying and layout.
  - 2. Review meanings and intent of dimensions, notes, terms, graphic symbols, and other layout information indicated on the Drawings.
  - 3. Review requirements for including layouts on Shop Drawings and other submittals.

4. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

#### **1.04 INFORMATIONAL SUBMITTALS**

- A. Qualification Data: For land surveyor.
- B. Certified Surveys: Submit two copies signed by land surveyor.
- C. Certificates: Submit certificate signed by land surveyor, certifying that location and elevation of improvements comply with requirements.
- D. Cutting and Patching Plan: Submit plan describing procedures at least 10 calendar days prior to the time cutting and patching will be performed. Include the following information:
  1. Extent: Describe reason for and extent of each occurrence of cutting and patching.
  2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building appearance and other significant visual elements.
  3. Products: List products to be used for patching and firms or entities that will perform patching work.
  4. Dates: Indicate when cutting and patching will be performed.
  5. Utilities and Mechanical and Electrical Systems: List services and systems that cutting and patching procedures will disturb or affect. List services and systems that will be relocated and those that will be temporarily out of service. Indicate length of time permanent services and systems will be disrupted.
    - a. Include description of provisions for temporary services and systems during interruption of permanent services and systems.
- E. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

#### **1.05 CLOSEOUT SUBMITTALS**

- A. Final Property Survey: Submit 1 electronic and 1 paper copy to owner along with any copies required by permitting agencies showing the Work performed and record survey data.

#### **1.06 QUALITY ASSURANCE**

- A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.
- B. Professional Engineer Qualifications: Refer to Section 014000 "Quality Requirements."
- C. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  1. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Architect of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.
  2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operational elements include the following:
    - a. Primary operational systems and equipment.
    - b. Fire separation assemblies.
    - c. Air or smoke barriers.
    - d. Fire-suppression systems.

- e. Plumbing piping systems.
  - f. Mechanical systems piping and ducts.
  - g. Control systems.
  - h. Communication systems.
  - i. Fire-detection and -alarm systems.
  - j. Conveying systems.
  - k. Electrical wiring systems.
  - l. Operating systems of special construction.
3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
- a. Water, moisture, or vapor barriers.
  - b. Membranes and flashings.
  - c. Exterior curtain-wall construction.
  - d. Sprayed fire-resistive material.
  - e. Equipment supports.
  - f. Piping, ductwork, vessels, and equipment.
  - g. Noise- and vibration-control elements and systems.
4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- D. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Comply with requirements specified in other Sections.
  - 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Architect for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.
- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas service piping, and water-service piping; underground electrical services; and other utilities.
  2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
1. Description of the Work, including Specification Section number and paragraph, and Drawing sheet number and detail, where applicable.
  2. List of detrimental conditions, including substrates.
  3. List of unacceptable installation tolerances.
  4. Recommended corrections.
- D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.02 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect in accordance with requirements in Section 013100 "Project Management and Coordination."

### 3.03 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks and existing conditions. If discrepancies are discovered, notify Architect promptly.
- B. Engage a land surveyor experienced in laying out the Work, using the following accepted surveying practices:
1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  2. Establish limits on use of Project site.
  3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  4. Inform installers of lines and levels to which they must comply.

5. Check the location, level and plumb, of every major element as the Work progresses.
  6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### **3.04 FIELD ENGINEERING**

- A. Identification: Owner will identify existing benchmarks, control points, and property corners.
- B. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
1. Do not change or relocate existing benchmarks or control points without prior written approval of Architect. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Architect before proceeding.
  2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.
- C. Benchmarks: Establish and maintain a minimum of two permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
  2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.
  3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.
- D. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.
- E. Final Property Survey: Engage a land surveyor to prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.
1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a site corner to a legal point.
  2. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

### **3.05 INSTALLATION**

- A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb, and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.
  4. Maintain minimum headroom clearance of 96 inches (2440 mm) in occupied spaces and 90 inches (2300 mm) in unoccupied spaces, unless otherwise indicated on Drawings.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure satisfactory results as judged by Architect. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.
- F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  2. Allow for building movement, including thermal expansion and contraction.
  3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Architect. Fit exposed connections together to form hairline joints.

### **3.06 CUTTING AND PATCHING**

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and



- patching in accordance with requirements in Section 011000 "Summary."
- F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.
  - G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
    - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
    - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
    - 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
    - 4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.
    - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
    - 6. Proceed with patching after construction operations requiring cutting are complete.
  - H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Architect. Provide materials and comply with installation requirements specified in other Sections, where applicable.
    - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
    - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
      - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
      - b. Restore damaged pipe covering to its original condition.
    - 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
      - a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.
    - 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
    - 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
  - I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### 3.07 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold waste materials more than seven calendar days during normal weather or three calendar days if the temperature is expected to rise above 80 deg F (27 deg C).
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
    - a. Use containers intended for holding waste materials of type to be stored.
  - 4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.08 STARTING AND ADJUSTING

- A. Coordinate startup and adjusting of equipment and operating components.
- B. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E. Manufacturer's Field Service: Comply with qualification requirements in Section 01 4000 "Quality Requirements."

### **3.09 PROTECTION OF INSTALLED CONSTRUCTION**

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.
- C. Comply with manufacturer's written instructions for temperature and relative humidity.

### **3.10 CORRECTION OF THE WORK**

- A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.
- C. Restore permanent facilities used during construction to their specified condition.
- D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

**END OF SECTION 01 73 00**

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**SECTION 01 77 00 - CLOSEOUT PROCEDURES****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
  - 1. Substantial Completion procedures.
  - 2. Final completion procedures.
  - 3. Warranties.
  - 4. Final cleaning.
- B. Related Requirements:
  - 1. Section 017823 "Operation and Maintenance Data" for additional operation and maintenance manual requirements.
  - 2. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
  - 3. Section 017900 "Demonstration and Training" for requirements to train the Owner's maintenance personnel to adjust, operate, and maintain products, equipment, and systems.

**1.03 DEFINITIONS**

- A. List of Incomplete Items: Contractor-prepared list of items to be completed or corrected, prepared for the Architect's use prior to Architect's inspection, to determine if the Work is substantially complete.

**1.04 ACTION SUBMITTALS**

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

**1.05 CLOSEOUT SUBMITTALS**

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

**1.06 MAINTENANCE MATERIAL SUBMITTALS**

- A. Schedule of Maintenance Material Items: For maintenance material submittal items required..
- B. Contractor shall provide the owner, at the time of Final Completion, 2% owner's stock of ceiling tile and carpet tile.

**1.07 SUBSTANTIAL COMPLETION PROCEDURES**

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 calendar days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
  - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar

- releases.
2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, record copy paper submittals, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number.
    - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Owner's signature for receipt of submittals.
  5. Submit testing, adjusting, and balancing records.
  6. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 calendar days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
  2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  3. Complete startup and testing of systems and equipment.
  4. Perform preventive maintenance on equipment used prior to Substantial Completion.
  5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
  6. Advise Owner of changeover in utility services.
  7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
  8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
  9. Complete final cleaning requirements.
  10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 calendar days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  2. Results of completed inspection will form the basis of requirements for Final Completion.

#### **1.08 FINAL COMPLETION PROCEDURES**

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:

1. Project Acceptance Form signed in order by Contractor, Architect, Project Manager, Facilities Maintenance, and End User
  2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Submit pest-control final inspection report.
  5. Submit Final Completion photographic documentation.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 calendar days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

#### **1.09 ONE YEAR WARRANTY**

- A. Schedule a one year warranty walkthrough with the Owner, Architect, and Contactor at 11 months after the date of Substantial Completion.

#### **1.10 LIST OF INCOMPLETE ITEMS**

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor, listed by room or space number.
  2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
  3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.
  4. Submit list of incomplete items in the following format:
    - a. MS Excel Electronic File: Architect will return annotated file.

#### **1.11 SUBMITTAL OF PROJECT WARRANTIES**

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
1. Submit by uploading to web-based project software site.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
  - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

## **PART 3 EXECUTION**

### **3.01 FINAL CLEANING**

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
    - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are not planted, mulched, or paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited-access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
    - i. Vacuum and mop concrete.
    - j. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
    - k. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - l. Remove labels that are not permanent.
    - m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    - n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.



- o. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - p. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
  - q. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
  - r. Clean strainers.
  - s. Leave Project clean and ready for occupancy.
- C. Pest Control: Comply with pest control requirements in Section 015000 "Temporary Facilities and Controls." Prepare written report.
- D. Construction Waste Disposal: Comply with waste-disposal requirements in Section 017419 "Construction Waste Management and Disposal."

**3.02 REPAIR OF THE WORK**

- A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

**END OF SECTION 01 77 00**

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## SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:
  - 1. Operation and maintenance documentation directory manuals.
  - 2. Emergency manuals.
  - 3. Systems and equipment operation manuals.
  - 4. Systems and equipment maintenance manuals.
  - 5. Product maintenance manuals.
- B. Related Requirements:
  - 1. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.

#### 1.03 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

#### 1.04 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
  - 1. Architect will comment on whether content of operation and maintenance submittals is acceptable.
  - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
  - 1. Submit by uploading to web-based project software site. Enable reviewer comments on draft submittals.
- C. Initial Manual Submittal: Submit draft copy of each manual at least 30 calendar days before commencing demonstration and training. Architect will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 calendar days before commencing demonstration and training. Architect will return copy with comments.
  - 1. Correct or revise each manual to comply with Architect's comments. Submit copies of each corrected manual within 15 calendar days of receipt of Architect's comments and prior to commencing demonstration and training.
- E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

#### 1.05 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
  - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for

minimum readable file size.

2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

#### **1.06 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS**

- A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:
  1. Title page.
  2. Table of contents.
  3. Manual contents.
- B. Title Page: Include the following information:
  1. Subject matter included in manual.
  2. Name and address of Project.
  3. Name and address of Owner.
  4. Date of submittal.
  5. Name and contact information for Contractor.
  6. Name and contact information for Construction Manager.
  7. Name and contact information for Architect.
  8. Name and contact information for Commissioning Authority.
  9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
  10. Cross-reference to related systems in other operation and maintenance manuals.
- C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.
  1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

#### **1.07 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY MANUAL**

- A. Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals. List items and their location to facilitate ready access to desired information. Include the following:
  1. List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.
  2. List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate

list.

3. Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.

#### **1.08 EMERGENCY MANUALS**

- A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- B. Content: Organize manual into a separate section for each of the following:
  1. Type of emergency.
  2. Emergency instructions.
  3. Emergency procedures.
- C. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:
  1. Fire.
  2. Flood.
  3. Gas leak.
  4. Water leak.
  5. Power failure.
  6. Water outage.
  7. System, subsystem, or equipment failure.
  8. Chemical release or spill.
- D. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.
- E. Emergency Procedures: Include the following, as applicable:
  1. Instructions on stopping.
  2. Shutdown instructions for each type of emergency.
  3. Operating instructions for conditions outside normal operating limits.
  4. Required sequences for electric or electronic systems.
  5. Special operating instructions and procedures.

#### **1.09 SYSTEMS AND EQUIPMENT OPERATION MANUALS**

- A. Systems and Equipment Operation Manual: Assemble a complete set of data indicating operation of each system, subsystem, and piece of equipment not part of a system. Include information required for daily operation and management, operating standards, and routine and special operating procedures.
  1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- B. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:
  1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
  2. Performance and design criteria if Contractor has delegated design responsibility.
  3. Operating standards.
  4. Operating procedures.
  5. Operating logs.
  6. Wiring diagrams.
  7. Control diagrams.
  8. Piped system diagrams.

9. Precautions against improper use.
  10. License requirements including inspection and renewal dates.
- C. Descriptions: Include the following:
1. Product name and model number. Use designations for products indicated on Contract Documents.
  2. Manufacturer's name.
  3. Equipment identification with serial number of each component.
  4. Equipment function.
  5. Operating characteristics.
  6. Limiting conditions.
  7. Performance curves.
  8. Engineering data and tests.
  9. Complete nomenclature and number of replacement parts.
- D. Operating Procedures: Include the following, as applicable:
1. Startup procedures.
  2. Equipment or system break-in procedures.
  3. Routine and normal operating instructions.
  4. Regulation and control procedures.
  5. Instructions on stopping.
  6. Normal shutdown instructions.
  7. Seasonal and weekend operating instructions.
  8. Required sequences for electric or electronic systems.
  9. Special operating instructions and procedures.
- E. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.
- F. Piped Systems: Diagram piping as installed and identify color coding where required for identification.

#### **1.10 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS**

- A. Systems and Equipment Maintenance Manuals: Assemble a complete set of data indicating maintenance of each system, subsystem, and piece of equipment not part of a system. Include manufacturers' maintenance documentation, preventive maintenance procedures and frequency, repair procedures, wiring and systems diagrams, lists of spare parts, and warranty information.
1. Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
  2. Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- B. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranties and bonds as described below.
- C. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- D. Manufacturers' Maintenance Documentation: Include the following information for each component part or piece of equipment:

1. Standard maintenance instructions and bulletins; include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
  - a. Prepare supplementary text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
3. Identification and nomenclature of parts and components.
4. List of items recommended to be stocked as spare parts.
- E. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
  1. Test and inspection instructions.
  2. Troubleshooting guide.
  3. Precautions against improper maintenance.
  4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  5. Aligning, adjusting, and checking instructions.
  6. Demonstration and training video recording, if available.
- F. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
  1. Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
  2. Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- G. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- H. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- I. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
  1. Include procedures to follow and required notifications for warranty claims.
- J. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
  1. Do not use original project record documents as part of maintenance manuals.

#### **1.11 PRODUCT MAINTENANCE MANUALS**

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.
- C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of installer or supplier and maintenance service

- agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- D. Product Information: Include the following, as applicable:
    - 1. Product name and model number.
    - 2. Manufacturer's name.
    - 3. Color, pattern, and texture.
    - 4. Material and chemical composition.
    - 5. Reordering information for specially manufactured products.
  - E. Maintenance Procedures: Include manufacturer's written recommendations and the following:
    - 1. Inspection procedures.
    - 2. Types of cleaning agents to be used and methods of cleaning.
    - 3. List of cleaning agents and methods of cleaning detrimental to product.
    - 4. Schedule for routine cleaning and maintenance.
    - 5. Repair instructions.
  - F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.
  - G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
    - 1. Include procedures to follow and required notifications for warranty claims.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 78 23**



## SECTION 01 78 39 - PROJECT RECORD DOCUMENTS

### PART 1 GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. Section includes administrative and procedural requirements for Project Record Documents, including the following:
  - 1. Record Drawings.
  - 2. Record specifications.
  - 3. Record Product Data.
  - 4. Miscellaneous record submittals.
- B. Related Requirements:
  - 1. Section 017300 "Execution" for final property survey.
  - 2. Section 017700 "Closeout Procedures" for general closeout procedures.
  - 3. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 4. Section 013300 "Submittal Procedures" for Record Copy Paper Submittals

#### 1.03 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit one set(s) of marked-up record prints.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and Contract modifications.
- C. Record Copy of Approved Submittals: Submit according to Section 013300 "Submittal Procedures"
  - 1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
  - 2. Submit electronic copy of all approved submittals to Owner.
- D. Reports: Submit written report weekly indicating items incorporated into Project Record Documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.

#### 1.04 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
  - 1. Preparation: Mark record prints to show the actual installation, where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Accurately record information in an acceptable drawing technique.
    - c. Record data as soon as possible after obtaining it.
    - d. Record and check the markup before enclosing concealed installations.
    - e. Cross-reference record prints to corresponding photographic documentation.
  - 2. Content: Types of items requiring marking include, but are not limited to, the following:
    - a. Dimensional changes to Drawings.

- b. Revisions to details shown on Drawings.
  - c. Depths of foundations.
  - d. Locations and depths of underground utilities.
  - e. Revisions to routing of piping and conduits.
  - f. Revisions to electrical circuitry.
  - g. Actual equipment locations.
  - h. Duct size and routing.
  - i. Locations of concealed internal utilities.
  - j. Changes made by Change Order or Construction Change Directive.
  - k. Changes made following Architect's written orders.
  - l. Details not on the original Contract Drawings.
  - m. Field records for variable and concealed conditions.
  - n. Record information on the Work that is shown only schematically.
3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
  4. Mark record prints with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
  5. Mark important additional information that was either shown schematically or omitted from original Drawings.
  6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:
1. Format: Annotated PDF electronic file with comment function enabled.
  2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
  3. Refer instances of uncertainty to Architect for resolution.
  4. Architect will furnish Contractor with one set of digital data files of the Contract Drawings for use in recording information.
    - a. See Section 013100 "Project Management and Coordination" for requirements related to use of Architect's digital data files.
    - b. Architect will provide data file layer information. Record markups in separate layers.
- C. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
  2. Format: Annotated PDF electronic file with comment function enabled.
  3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
  4. Identification: As follows:
    - a. Project name.
    - b. Date.
    - c. Designation "PROJECT RECORD DRAWINGS."
    - d. Name of Architect.
    - e. Name of Contractor.

**1.05 RECORD SPECIFICATIONS**

- A. Preparation: Mark Specifications to indicate the actual product installation, where installation varies from that indicated in Specifications, addenda, and Contract modifications.
  - 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  - 2. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
  - 3. Note related Change Orders and Record Drawings where applicable.
- B. Format: Submit record specifications as annotated PDF electronic file.

**1.06 MISCELLANEOUS RECORD SUBMITTALS**

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file.
  - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

**1.07 MAINTENANCE OF RECORD DOCUMENTS**

- A. Maintenance of Record Documents: Store Record Documents in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 78 39**

**SECTION 01 79 00 - DEMONSTRATION AND TRAINING****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
  - 1. Instruction in operation and maintenance of systems, subsystems, and equipment.
  - 2. Demonstration and training video recordings.

**1.03 INFORMATIONAL SUBMITTALS**

- A. Instruction Program: Submit outline of instructional program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructors' names for each training module. Include learning objective and outline for each training module.
  - 1. Indicate proposed training modules using manufacturer-produced demonstration and training video recordings for systems, equipment, and products in lieu of video recording of live instructional module.
- B. Attendance Record: For each training module, submit list of participants and length of instruction time.
- C. Evaluations: For each participant and for each training module, submit results and documentation of performance-based test.

**1.04 CLOSEOUT SUBMITTALS**

- A. Demonstration and Training Video Recordings: Submit one electronic copy of video within seven calendar days of end of training.
  - 1. Identification: On each copy, provide an applied label with the following information:
    - a. Name of Project.
    - b. Name and address of videographer.
    - c. Name of Architect.
    - d. Name of Construction Manager.
    - e. Name of Contractor.
    - f. Date of video recording.
  - 2. Transcript: Prepared in PDF electronic format. Include a cover sheet with same label information as the corresponding video recording and a table of contents with links to corresponding training components. Include name of Project and date of video recording on each page.
  - 3. At completion of training, submit complete training manual(s) for Owner's use prepared in same PDF file format required for operation and maintenance manuals specified in Section 017823 "Operation and Maintenance Data."

**1.05 QUALITY ASSURANCE**

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.

- C. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.
- D. Preinstruction Conference: Conduct conference at Project site to comply with requirements in Section 013100 "Project Management and Coordination." Review methods and procedures related to demonstration and training including, but not limited to, the following:
  - 1. Inspect and discuss locations and other facilities required for instruction.
  - 2. Review and finalize instruction schedule and verify availability of educational materials, instructors' personnel, audiovisual equipment, and facilities needed to avoid delays.
  - 3. Review required content of instruction.
  - 4. For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

#### **1.06 COORDINATION**

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data have been reviewed and approved by Architect.

#### **1.07 INSTRUCTION PROGRAM**

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
  - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
    - a. System, subsystem, and equipment descriptions.
    - b. Performance and design criteria if Contractor is delegated design responsibility.
    - c. Operating standards.
    - d. Regulatory requirements.
    - e. Equipment function.
    - f. Operating characteristics.
    - g. Limiting conditions.
    - h. Performance curves.
  - 2. Documentation: Review the following items in detail:
    - a. Emergency manuals.
    - b. Systems and equipment operation manuals.
    - c. Systems and equipment maintenance manuals.
    - d. Product maintenance manuals.
    - e. Project Record Documents.
    - f. Identification systems.
    - g. Warranties and bonds.
    - h. Maintenance service agreements and similar continuing commitments.
  - 3. Emergencies: Include the following, as applicable:
    - a. Instructions on meaning of warnings, trouble indications, and error messages.

- b. Instructions on stopping.
- c. Shutdown instructions for each type of emergency.
- d. Operating instructions for conditions outside of normal operating limits.
- e. Sequences for electric or electronic systems.
- f. Special operating instructions and procedures.
4. Operations: Include the following, as applicable:
  - a. Startup procedures.
  - b. Equipment or system break-in procedures.
  - c. Routine and normal operating instructions.
  - d. Regulation and control procedures.
  - e. Control sequences.
  - f. Safety procedures.
  - g. Instructions on stopping.
  - h. Normal shutdown instructions.
  - i. Operating procedures for emergencies.
  - j. Operating procedures for system, subsystem, or equipment failure.
  - k. Seasonal and weekend operating instructions.
  - l. Required sequences for electric or electronic systems.
  - m. Special operating instructions and procedures.
5. Adjustments: Include the following:
  - a. Alignments.
  - b. Checking adjustments.
  - c. Noise and vibration adjustments.
  - d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
  - a. Diagnostic instructions.
  - b. Test and inspection procedures.
7. Maintenance: Include the following:
  - a. Inspection procedures.
  - b. Types of cleaning agents to be used and methods of cleaning.
  - c. List of cleaning agents and methods of cleaning detrimental to product.
  - d. Procedures for routine cleaning.
  - e. Procedures for preventive maintenance.
  - f. Procedures for routine maintenance.
  - g. Instruction on use of special tools.
8. Repairs: Include the following:
  - a. Diagnosis instructions.
  - b. Repair instructions.
  - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
  - d. Instructions for identifying parts and components.
  - e. Review of spare parts needed for operation and maintenance.

#### **1.08 PREPARATION**

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

#### **1.09 INSTRUCTION**

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.

- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
  - 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
  - 2. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
  - 1. Schedule training with Owner, through Architect, with at least seven calendar days' advance notice.
- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Evaluation: At conclusion of each training module, assess and document each participant's mastery of module by use of an oral performance-based test.
- F. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

#### **1.10 DEMONSTRATION AND TRAINING VIDEO RECORDINGS**

- A. General: Engage a qualified commercial videographer to record demonstration and training video recordings. Record each training module separately. Include classroom instructions and demonstrations, board diagrams, and other visual aids, but not student practice.
  - 1. At beginning of each training module, record each chart containing learning objective and lesson outline.
- B. Recording: Mount camera on tripod before starting recording, unless otherwise necessary to adequately cover area of demonstration and training. Display continuous running time.
  - 1. Film training session(s) in segments not to exceed 15 minutes.
    - a. Produce segments to present a single significant piece of equipment per segment.
    - b. Organize segments with multiple pieces of equipment to follow order of Project Manual table of contents.
    - c. Where a training session on a particular piece of equipment exceeds 15 minutes, stop filming and pause training session. Begin training session again upon commencement of new filming segment.
- C. Light Levels: Verify light levels are adequate to properly light equipment. Verify equipment markings are clearly visible prior to recording.
  - 1. Furnish additional portable lighting as required.

#### **PART 2 PRODUCTS (NOT USED)**

#### **PART 3 EXECUTION (NOT USED)**

**END OF SECTION 01 79 00**

## SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Concrete formwork.
- B. Concrete for composite floor construction.
- C. Floors and slabs on grade.
- D. Concrete foundations and anchor bolts.
- E. Concrete reinforcement.
- F. Joint devices associated with concrete work.
- G. Concrete curing.

#### 1.02 RELATED REQUIREMENTS

- A. Section 07 92 00 - Joint Sealants: Products and installation for sealants and joint fillers for saw cut joints and isolation joints in slabs.

#### 1.03 REFERENCE STANDARDS

- A. ACI CODE-318 - Building Code Requirements for Structural Concrete and Commentary; 2019 (Reapproved 2022).
- B. ACI PRC-211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide; 2022.
- C. ACI PRC-302.1 - Guide to Concrete Floor and Slab Construction; 2015.
- D. ACI PRC-304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete; 2000 (Reapproved 2009).
- E. ACI PRC-305 - Guide to Hot Weather Concreting; 2020.
- F. ACI PRC-306 - Guide to Cold Weather Concreting; 2016.
- G. ACI PRC-308 - Guide to External Curing of Concrete; 2016.
- H. ACI PRC-347 - Guide to Formwork for Concrete; 2014 (Reapproved 2021).
- I. ACI SPEC-117 - Specification for Tolerances for Concrete Construction and Materials; 2010 (Reapproved 2015).
- J. ACI SPEC-301 - Specifications for Concrete Construction; 2020.
- K. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.
- L. ASTM A1064/A1064M - Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete; 2022.
- M. ASTM C33/C33M - Standard Specification for Concrete Aggregates; 2023.
- N. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2023.
- O. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2024.
- P. ASTM C109/C109M - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 50 mm [2 in.] Cube Specimens); 2023.
- Q. ASTM C143/C143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- R. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.
- S. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete; 2020.
- T. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete; 2010a (Reapproved 2016).
- U. ASTM C494/C494M - Standard Specification for Chemical Admixtures for Concrete; 2019, with Editorial Revision (2022).
- V. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2023, with Editorial Revision.
- W. ASTM C881/C881M - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete; 2020a.



- X. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2020.
- Y. ASTM C1602/C1602M - Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete; 2022.
- Z. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types); 2023.
- AA. ASTM E1155 - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers; 2020.
- BB. ASTM E1155M - Standard Test Method for Determining FF Floor Flatness and FL Floor Levelness Numbers (Metric); 2014.
- CC. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs; 2018a.
- DD. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2017 (Reapproved 2023).
- EE. COE CRD-C 513 - Handbook for Concrete and Cement Corps of Engineers Specifications for Rubber Waterstops; 1974.

#### **1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
- C. Mix Design: Submit proposed concrete mix design.
  - 1. Indicate proposed mix design complies with requirements of ACI SPEC-301, Section 4 - Concrete Mixtures.
  - 2. Indicate proposed mix design complies with requirements of ACI CODE-318, Chapter 5 - Concrete Quality, Mixing and Placing.
- D. Test Reports: Submit report for each test or series of tests specified.
- E. Manufacturer's Installation Instructions: For concrete accessories, indicate installation procedures and interface required with adjacent construction.
- F. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- G. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

#### **1.05 QUALITY ASSURANCE**

- A. Perform work of this section in accordance with ACI SPEC-301 and ACI CODE-318.
- B. Follow recommendations of ACI PRC-305 when concreting during hot weather.
- C. Follow recommendations of ACI PRC-306 when concreting during cold weather.

#### **1.06 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

### **PART 2 PRODUCTS**

#### **2.01 FORMWORK**

- A. Formwork Design and Construction: Comply with guidelines of ACI PRC-347 to provide formwork that will produce concrete complying with tolerances of ACI SPEC-117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
  - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
  - 2. Earth Cuts: Do not use earth cuts as forms for vertical surfaces. Natural rock formations that maintain a stable vertical edge may be used as side forms.

3. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
4. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

## 2.02 REINFORCEMENT MATERIALS

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi).
  1. Type: Deformed billet-steel bars.
  2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement (WWR): Plain type, ASTM A1064/A1064M.
  1. Form: Flat Sheets.
  2. WWR Style: As indicated on drawings.
- C. Reinforcement Accessories:
  1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch.
  2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
  3. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

## 2.03 CONCRETE MATERIALS

- A. Cement: ASTM C150/C150M, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C33/C33M.
  1. Acquire aggregates for entire project from same source.
  2. Maximum coarse-aggregate size: 3/4 inch nominal
  3. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Fly Ash: ASTM C618, Class C or F.
- D. Water: ASTM C1602/C1602M; clean, potable, and not detrimental to concrete.

## 2.04 ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C260/C260M.
- C. High Range Water Reducing and Retarding Admixture: ASTM C494/C494M Type G.
- D. High Range Water Reducing Admixture: ASTM C494/C494M Type F.
- E. Water Reducing and Accelerating Admixture: ASTM C494/C494M Type E.
- F. Water Reducing and Retarding Admixture: ASTM C494/C494M Type D.
- G. Accelerating Admixture: ASTM C494/C494M Type C.
- H. Retarding Admixture: ASTM C494/C494M Type B.
- I. Water Reducing Admixture: ASTM C494/C494M Type A.

## 2.05 ACCESSORY MATERIALS

- A. Underslab Vapor Retarder: Multi-layer, fabric-, cord-, grid-, or aluminum-reinforced polyethylene or equivalent, complying with ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. The use of single ply polyethylene is prohibited.
  1. Sheet Material: ASTM E1745, Class A; stated by manufacturer as suitable for installation in contact with soil or granular fill under concrete slabs. Single-ply polyethylene is prohibited.
    - a. Single layer, 10 mil minimum.
  2. Accessory Products: Vapor retarder manufacturer's recommended tape, adhesive, mastic, prefabricated boots, etc., for sealing seams and penetrations.
- B. Non-Shrink Cementitious Grout: Premixed compound consisting of nonmetallic aggregate, cement, water reducing and plasticizing agents.
  1. Grout: Comply with ASTM C1107/C1107M.

2. Minimum Compressive Strength at 28 Days, ASTM C109/C109M: 7,000 pounds per square inch.
3. Products containing aluminum powder are not permitted.

## **2.06 BONDING AND JOINTING PRODUCTS**

- A. Epoxy Bonding System:
  1. Complying with ASTM C881/C881M and of Type required for specific application.
- B. Waterstops: Rubber, complying with COE CRD-C 513.
- C. Slab Isolation Joint Filler (cellulose fiber): 1/2 inch thick, height equal to slab thickness, with removable top section that will form 1/2 inch deep sealant pocket after removal.
  1. Material: ASTM D1751, cellulose fiber, at door locations, exterior walls and column piers, unless otherwise noted.
- D. Slab Construction Joint Devices: Combination keyed joint form and screed, galvanized steel, with rectangular or round knockout holes for conduit or rebar to pass through joint form at 6 inches on center; ribbed steel stakes for setting.

## **2.07 CURING MATERIALS**

- A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss caused by high temperature, low humidity, and high winds; intended for application immediately after concrete placement.
- B. Curing Compound, Naturally Dissipating: Clear, water-based, liquid membrane-forming compound; complying with ASTM C309. If products used are other than listed below, coordinate final product selection with concrete sealer and ensure compatibility.
  1. Product dissipation rate varies depending on application rate, moisture level in concrete and the amount of exposure to UV light..
  2. Products:
    - a. Euclid Chemical Company; KUREZ DR VOX: [www.euclidchemical.com/#sle](http://www.euclidchemical.com/#sle).
- C. Concrete Sealer: Solvent-based, Siloxane Water and Chloride Repellent
  1. Apply after surface is well cured a minimum of 3 days using water, wet burlap, polyethylene, curing paper, or a dissipating curing compound such as Euclid KUREZ DR VOX.
  2. All joint sealants and caulks should be in place before applying sealer.
    - a. Manufacturers:
      - 1) Euclid Chemical Company; EUCO-GUARD 100: [www.euclidchemical.com/#sle](http://www.euclidchemical.com/#sle).
- D. Alternate Curing Methods
  1. Moisture-Retaining Sheet: ASTM C171.
    - a. Curing paper, regular.
- E. Water: Potable, not detrimental to concrete.

## **2.08 CONCRETE MIX DESIGN**

- A. Proportioning Normal Weight Concrete: Comply with ACI PRC-211.1 recommendations.
- B. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI SPEC-301.
  1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
- C. Admixtures: Add acceptable admixtures as recommended in ACI PRC-211.1 and at rates recommended or required by manufacturer.
- D. Normal Weight Concrete:
  1. All Concrete: Proportion normal-weight concrete mix as follows:
    - a. Minimum Compressive Strength: As indicated on drawings.
    - b. Maximum W/C Ratio: As indicated on drawings.

- c. Slump Limit: 4 inches, plus or minus 1 inch.
- d. Air Content: As indicated on drawings.
- 2. Fly Ash Content: Maximum 25 percent of cementitious materials by weight.
- 3. Maximum Aggregate Size: See drawings.

## **2.09 MIXING**

- A. Transit Mixers: Comply with ASTM C94/C94M.
- B. Adding Water: If concrete arrives on-site with slump less than suitable for placement, do not add water that exceeds the maximum water-cement ratio or exceeds the maximum permissible slump.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

### **3.02 PREPARATION**

- A. Formwork: Comply with requirements of ACI SPEC-301. Design and fabricate forms to support all applied loads until concrete is cured and for easy removal without damage to concrete.
- B. Verify that forms are clean and free of rust before applying release agent.
- C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- D. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning and applying bonding agent in according to bonding agent manufacturer's instructions.
  - 1. Use epoxy bonding system for bonding to damp surfaces, for structural load-bearing applications, and where curing under humid conditions is required.
- E. Interior Slabs on Grade: Install vapor retarder under interior slabs on grade. Comply with ASTM E1643. Lap joints minimum 6 inches. Seal joints, seams and penetrations watertight with manufacturer's recommended products and follow manufacturer's written instructions. Repair damaged vapor retarder before covering.
  - 1. Vapor Retarder Over Granular Fill: Install compactible granular fill before placing vapor retarder as indicated on drawings. Do not use sand.

### **3.03 INSTALLING REINFORCEMENT AND OTHER EMBEDDED ITEMS**

- A. Comply with requirements of ACI SPEC-301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.
- C. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not interfere with concrete placement.

### **3.04 PLACING CONCRETE**

- A. Place concrete in accordance with ACI PRC-304.
- B. Place concrete for floor slabs in accordance with ACI PRC-302.1.
- C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- D. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- E. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.

- F. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

### 3.05 SLAB JOINTING

- A. Locate joints as indicated on drawings.
- B. Anchor joint fillers and devices to prevent movement during concrete placement.
- C. Isolation Joints: Use preformed joint filler with removable top section for joint sealant, total height equal to thickness of slab, set flush with top of slab.
- D. Load Transfer Construction and Contraction Joints: Install load transfer devices as indicated; saw cut joint at surface as indicated for contraction joints.
- E. Saw Cut Contraction Joints: Saw cut joints before concrete begins to cool, within 4 to 12 hours after placing; use 3/16 inch thick blade and cut at least 1 inch deep but not less than one quarter (1/4) the depth of the slab.

### 3.06 FLOOR FLATNESS AND LEVELNESS TOLERANCES

- A. Minimum F(F) Floor Flatness and F(L) Floor Levelness Values:
  - 1. Exposed to View and Foot Traffic: F(F) of 20; F(L) of 15, on-grade only.
- B. Measure F(F) Floor Flatness and F(L) Floor Levelness in accordance with ASTM E1155 (ASTM E1155M), within 48 hours after slab installation; report both composite overall values and local values for each measured section.
- C. Correct the slab surface if composite overall value is less than specified and if local value is less than two-thirds of specified value or less than F(F) 13/F(L) 10.
- D. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

### 3.07 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Exposed Form Finish: Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
  - 1. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
- D. Concrete Slabs: Finish to requirements of ACI PRC-302.1 and as follows:
  - 1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, thin set quarry tile, and thin set ceramic tile.
  - 2. Other Surfaces to Be Left Exposed: Trowel as described in ACI PRC-302.1, minimizing burnish marks and other appearance defects.
- E. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains as indicated on drawings.

### 3.08 CURING AND PROTECTION

- A. Comply with requirements of ACI PRC-308. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Surfaces Not in Contact with Forms:
  - 1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.

2. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
3. Final Curing: Begin after initial curing but before surface is dry.

### **3.09 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 - Quality Requirements.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.
- E. Compressive Strength Tests: ASTM C39/C39M, for each test, mold and cure four concrete test cylinders. Obtain test samples for every 100 cubic yards 100 cubic yards or less of each class of each class of concrete placed.
- F. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- G. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C143/C143M.
- H. Slab Testing: Cooperate with manufacturer of specified moisture vapor reducing admixture (MVRA) to allow access for sampling and testing concrete for compliance with warranty requirements.

### **3.10 DEFECTIVE CONCRETE**

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor within 24 hours of test.
- B. Defective Concrete: Concrete not complying with required lines, details, dimensions, tolerances or specified requirements.
- C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

### **3.11 PROTECTION**

- A. Do not permit traffic over unprotected concrete floor surface until fully cured.

**END OF SECTION 03 30 00**

## SECTION 03 35 11 - CONCRETE FLOOR FINISHES

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Liquid densifiers and hardeners.
- B. Clear coatings.

#### 1.02 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate the work with concrete floor placement and concrete floor curing.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data on each finishing product, including information on compatibility of different products and limitations.
- C. Maintenance Data: Provide data on maintenance and renewal of applied finishes.
- D. Warranty Documentation: Manufacturer warranty; ensure that forms have been completed in Owner's name and registered with manufacturer.

#### 1.04 MOCK-UP

- A. For coatings, construct mock-up area under conditions similar to those that will exist during application, with coatings applied.
- B. Mock-Up Size: 10 feet square.
- C. Locate where directed.
- D. Mock-up may remain as part of the work.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's sealed packaging, including application instructions.

#### 1.06 FIELD CONDITIONS

- A. Maintain light level equivalent to a minimum 200 W light source at 8 feet above the floor surface over each 20 foot square area of floor being finished.

#### 1.07 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a two-year period commencing on the Date of Substantial Completion.
- C. Finish Warranty: Provide five-year manufacturer warranty against excessive degradation of finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

### PART 2 PRODUCTS

#### 2.01 DENSIFIERS AND HARDENERS

- A. Liquid Densifier and Hardener: Penetrating chemical compound that reacts with concrete, filling the pores, hardening, and dustproofing.
  - 1. Products:
    - a. PROSOCO, Inc; Consolideck LS: [www.prosoco.com/consolideck/#sle](http://www.prosoco.com/consolideck/#sle).
    - b. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.02 COATINGS

- A. High Gloss Clear Coating: Transparent, nonyellowing, acrylic polymer-based coating.
  - 1. Composition: Solvent-based.
  - 2. Traction Additive: Provide traction additive.
  - 3. Products:
    - a. PROSOCO, Inc; LSGuard: [www.prosoco.com/consolideck/#sle](http://www.prosoco.com/consolideck/#sle).
    - b. Substitutions: See Section 01 60 00 - Product Requirements.

**2.03 REPAIR MATERIALS**

- A. Repair underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch and that can be feathered at edges to match adjacent floor elevations.

**2.04 FLOOR PROTECTION**

- A. Multi-ply, textured membrane laminated with non-woven polypropylene geotextile.
  - 1. Basis of Design Product: Scofield "Proguard Duracover" floor protection system.
  - 2. Alternative Manufacturers: Pro-Tech, Surface Protection International, Shield n Peel.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that floor surfaces are acceptable to receive the work of this section.
- B. Verify that flaws in concrete have been patched and joints filled with methods and materials suitable for further finishes.

**3.02 GENERAL**

- A. Apply materials in accordance with manufacturer's instructions.

**3.03 COATING APPLICATION**

- A. Verify that surface is free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, fats, oils, grease, wax, soluble salts, residues from cleaning agents, and other impediments to adhesion.
- B. Verify that water vapor emission from concrete and relative humidity in concrete are within limits established by coating manufacturer.
- C. Protect adjacent non-coated areas from drips, overflow, and overspray; immediately remove excess material.
- D. Apply coatings in accordance with manufacturer's instructions, matching approved mock-ups for color, special effects, sealing and workmanship.

**END OF SECTION 03 35 11**



## SECTION 04 20 00 - UNIT MASONRY

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Concrete block.
- B. Mortar and Grout.
- C. Reinforcement and anchorage.
- D. Flashings.
- E. Lintels.
- F. Accessories.

#### 1.02 RELATED REQUIREMENTS

- A. Section 03 30 00 - Cast-in-Place Concrete: Installation of dovetail slots for masonry anchors.
- B. Section 07 92 00 - Joint Sealants: Sealing control and expansion joints.

#### 1.03 REFERENCE STANDARDS

- A. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2022, with Errata (2024).
- B. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- C. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement; 2022.
- D. ASTM A951/A951M - Standard Specification for Steel Wire for Masonry Joint Reinforcement; 2022.
- E. ASTM C90 - Standard Specification for Loadbearing Concrete Masonry Units; 2023.
- F. ASTM C129 - Standard Specification for Nonloadbearing Concrete Masonry Units; 2023.
- G. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.
- H. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2019a, with Editorial Revision.
- I. ASTM C476 - Standard Specification for Grout for Masonry; 2023.
- J. ASTM C1714/C1714M - Standard Specification for Preblended Dry Mortar Mix for Unit Masonry; 2019a.
- K. BIA Technical Notes No. 7 - Water Penetration Resistance – Design and Detailing; 2017.
- L. BIA Technical Notes No. 13 - Ceramic Glazed Brick Exterior Walls; 2017.
- M. BIA Technical Notes No. 28B - Brick Veneer/Steel Stud Walls; 2005.
- N. BIA Technical Notes No. 46 - Maintenance of Brick Masonry; 2017.
- O. TMS 402/602 - Building Code Requirements and Specification for Masonry Structures; 2022, with Errata (2024).

#### 1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by all relevant installers.

#### 1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar, and masonry accessories.
- C. Shop Drawings: Indicate pertinent dimensions, materials, anchorage, size and type of fasteners, and accessories for support system.
- D. Samples: Submit two samples of decorative block and colored mortar to illustrate color, texture, and extremes of color range.
- E. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.

- F. Manufacturer's Certificate: Certify that water repellent admixture manufacturer has certified masonry unit manufacturer as an approved user of water repellent admixture in the manufacture of concrete block.

#### **1.06 QUALITY ASSURANCE**

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
- B. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience and approved by manufacturer.

#### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, handle, and store masonry units by means that will prevent mechanical damage and contamination by other materials.
- B. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

#### **1.08 FIELD CONDITIONS**

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
- D. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

### **PART 2 PRODUCTS**

#### **2.01 UNIT MASONRY, GENERAL**

- A. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed work.
- B. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.

#### **2.02 CONCRETE MASONRY UNITS**

- A. Concrete Block: Comply with referenced standards and as follows:
  - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depth of 8 inches and 12 inches.

2. Size: Standard units with nominal face dimensions of 16 by 4 inches and nominal depth of 8 inches at sills.
3. Load-Bearing Units: ASTM C90, normal weight.
  - a. Hollow block, as indicated.
  - b. Exposed Faces: Manufacturer's standard color and texture.
4. Nonloadbearing Units: ASTM C129.
  - a. Hollow block, as indicated.
  - b. Normal weight.

### **2.03 MORTAR AND GROUT MATERIALS**

- A. Portland Cement: ASTM C150/C150M, Type I.
- B. Water: Clean and potable.
- C. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C1714/C1714M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
  1. Type: Type S.
  2. Color: Standard gray.
- D. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.

### **2.04 REINFORCEMENT AND ANCHORAGE**

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi), deformed billet bars; uncoated.
- B. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.
- C. Single Wythe Joint Reinforcement: ASTM A951/A951M.
  1. Type: Ladder.
  2. Material: ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M Class 3.
  3. Size: 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide not less than 5/8 inch of mortar coverage on each exposure.
- D. Metal-to-Metal Fasteners: Self-drilling, self-tapping screws; corrosion resistant finish or hot dip galvanized to ASTM A153/A153M.

### **2.05 FLASHINGS**

- A. Stainless Steel/Polymer Fabric Flashing: ASTM A240/A240M; 2 mil type 304 stainless steel sheet bonded on one side to one sheet of polymer fabric.
- B. Single-Wythe CMU Flashing System: System of CMU cell flashing pans and interlocking CMU web covers made from UV-resistant, high-density Polypropylene. Cell flashing pans have integral weep spouts designed to be built into mortar bed joints and that extend into the cell to prevent clogging with mortar. Attached web covers will span from pan to pan providing protection over the web and the joints of the CMU.
  1. Basis of Design Product: Mortar Net Solutions; BlockFlash or comparable product.
- C. Flashing Sealant/Adhesives: Silicone, polyurethane, or silyl-terminated polyether/polyurethane or other type required or recommended by flashing manufacturer; type capable of adhering to type of flashing used.
- D. Termination Bars: Stainless steel; compatible with membrane and adhesives.
- E. Drip Edge: Stainless steel; angled drip with hemmed edge; compatible with membrane and adhesives.

### **2.06 ACCESSORIES**

- A. Preformed Control Joints: Rubber material. Provide with corner and tee accessories, fused joints.

- B. Joint Filler: Closed cell polyethylene; oversized 50 percent to joint width; self expanding; in maximum lengths available.
- C. Cavity Mortar Control: Semi-rigid polyethylene or polyester mesh panels, sized to thickness of wall cavity, and designed to prevent mortar droppings from clogging weeps and cavity vents and allow proper cavity drainage.
- D. Weeps (base of wall):
  - 1. Type: Integral with pan flashing system.
- E. Weeps:
  - 1. Type: Polyester mesh.
- F. Cleaning Solution: Non-acidic, not harmful to masonry work or adjacent materials.

## **2.07 LINTELS**

- A. Concrete Lintels: ASTM C 1623, matching CMU's in color, texture, and density classification; and with reinforcing bars indicated.

## **2.08 MORTAR AND GROUT MIXING**

- A. Mortar for Unit Masonry: ASTM C270, using the Proportion Specification.
  - 1. Masonry below grade and in contact with earth: Type S.
  - 2. Exterior, loadbearing masonry: Type S.
  - 3. Exterior, non-loadbearing masonry: Type N.
  - 4. Interior, loadbearing masonry: Type S.
  - 5. Interior, non-loadbearing masonry: Type N.
- B. Colored Mortar: Proportion selected pigments and other ingredients to match Architect's sample, without exceeding manufacturer's recommended pigment-to-cement ratio.
- C. Grout: ASTM C476; consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches.
- D. Admixtures: Add to mixture at manufacturer's recommended rate and in accordance with manufacturer's instructions; mix uniformly.
- E. Mixing: Use mechanical batch mixer and comply with referenced standards.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that field conditions are acceptable and are ready to receive masonry.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for roughing into masonry work.

### **3.02 PREPARATION**

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation of masonry work. Maintain in place until building structure provides permanent bracing.

### **3.03 COLD AND HOT WEATHER REQUIREMENTS**

- A. Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

### **3.04 COURSING**

- A. Establish lines, levels, and coursing indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimension. Form vertical and horizontal joints of uniform thickness.
- C. Concrete Masonry Units:
  - 1. Bond: Running.

2. Coursing: One unit and one mortar joint to equal 8 inches.
3. Mortar Joints: Concave.

### **3.05 PLACING AND BONDING**

- A. Lay hollow masonry units with face shell bedding on head and bed joints.
- B. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- C. Remove excess mortar and mortar smears as work progresses.
- D. Interlock intersections and external corners.
- E. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- F. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.

### **3.06 WEEPS/CAVITY VENTS**

- A. Install weeps in veneer walls at 32 inches on center horizontally above through-wall flashing and at bottom of walls.

### **3.07 CAVITY MORTAR CONTROL**

- A. Do not permit mortar to drop or accumulate into cavity air space or to plug weep/cavity vents.
- B. For cavity walls, build inner wythe ahead of outer wythe to accommodate accessories.

### **3.08 REINFORCEMENT AND ANCHORAGE - GENERAL AND GENERAL**

- A. Unless otherwise indicated on drawings or specified under specific wall type, install horizontal joint reinforcement 8 inches on center.
- B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend minimum 16 inches each side of opening.
- C. Place continuous joint reinforcement in first and second joint below top of walls.
- D. Embed longitudinal wires of joint reinforcement in mortar joint with at least 5/8 inch mortar cover on each side.
- E. Lap joint reinforcement ends minimum 6 inches.

### **3.09 MASONRY FLASHINGS**

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
  1. Extend flashings full width at such interruptions and at least 6 inches, minimum, into adjacent masonry or turn up flashing ends at least 1 inch, minimum, to form watertight pan at nonmasonry construction.
  2. Remove or cover protrusions or sharp edges that could puncture flashings.
  3. Seal lapped ends and penetrations of flashing before covering with mortar.
- B. Install flashing in accordance with manufacturer's instructions and BIA Technical Notes No. 7.
- C. Extend metal flashings to within 1/2 inch of exterior face of masonry and adhere to top of stainless steel angled drip with hemmed edge.
- D. Lap end joints of flashings at least 6 inches, minimum, and seal watertight with flashing sealant/adhesive.

### **3.10 LINTELS**

- A. Install reinforced unit masonry lintels over openings where steel or precast concrete lintels are not scheduled.
  1. Openings: Reinforced as indicated on drawings.
  2. Do not splice reinforcing bars.
  3. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
  4. Place and consolidate grout fill without displacing reinforcing.

5. Allow masonry lintels to attain specified strength before removing temporary supports.
- B. Maintain minimum 24 inch bearing on each side of opening.

### **3.11 GROUTED COMPONENTS**

- A. Lap splices minimum 24 bar diameters.
- B. Support and secure reinforcing bars from displacement. Maintain position within 1/2 inch of dimensioned position.
- C. Place and consolidate grout fill without displacing reinforcing.

### **3.12 CONTROL AND EXPANSION JOINTS**

- A. Do not continue horizontal joint reinforcement through control or expansion joints.
- B. Install preformed control joint device in continuous lengths. Seal butt and corner joints in accordance with manufacturer's instructions.
- C. Size control joints as indicated on drawings; if not indicated, 3/4 inch wide and deep.

### **3.13 BUILT-IN WORK**

- A. As work progresses, install built-in metal door frames and anchor bolts and other items to be built into the work and furnished under other sections.
- B. Install built-in items plumb, level, and true to line.
- C. Bed anchors of metal door frames in adjacent mortar joints. Fill frame voids solid with grout.
  1. Fill adjacent masonry cores with grout minimum 12 inches from framed openings.
- D. Do not build into masonry construction organic materials that are subject to deterioration.

### **3.14 TOLERANCES**

- A. Install masonry within the site tolerances found in TMS 402/602.
- B. Maximum Variation From Unit to Adjacent Unit: 1/16 inch.
- C. Maximum Variation from Plane of Wall: 1/4 inch in 10 ft and 1/2 inch in 20 ft or more.
- D. Maximum Variation from Plumb: 1/4 inch per story non-cumulative; 1/2 inch in two stories or more.
- E. Maximum Variation from Level Coursing: 1/8 inch in 3 ft and 1/4 inch in 10 ft; 1/2 inch in 30 ft.
- F. Maximum Variation of Mortar Joint Thickness: Head joint, minus 1/4 inch, plus 3/8 inch.
- G. Maximum Variation from Cross Sectional Thickness of Walls: 1/4 inch.

### **3.15 CUTTING AND FITTING**

- A. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

### **3.16 PARGING**

- A. Dampen masonry walls prior to parging.
- B. Scarify each parging coat to ensure full bond to subsequent coat.
- C. Parge masonry walls in two uniform coats of mortar to a total thickness of As indicated on drawings.
- D. Steel trowel surface smooth and flat with a maximum surface variation of 1/8 inch per foot.

### **3.17 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 - Quality Requirements.

### **3.18 CLEANING**

- A. Remove excess mortar and mortar droppings.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with cleaning solution.

D. Use non-metallic tools in cleaning operations.

**3.19 PROTECTION**

A. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

**END OF SECTION 04 20 00**

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**SECTION 04 72 00 - CAST STONE MASONRY****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Units required are:
  - 1. Exterior wall units, including sills and water tables.

**1.02 RELATED REQUIREMENTS**

- A. Section 04 20 00 - Unit Masonry: Installation of cast stone in conjunction with masonry.
- B. Section 07 92 00 - Joint Sealants: Sealing joints indicated to be left open for sealant.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Test results of cast stone components made previously by the manufacturer.
- C. Shop Drawings: Include elevations, dimensions, layouts, profiles, cross sections, reinforcement, exposed faces, arrangement of joints, anchoring methods, anchors, and piece numbers.
- D. Mortar Color Selection Samples.
- E. Verification Samples: Pieces of actual cast stone components not less than 6 inches square, illustrating range of color and texture to be anticipated in components furnished for the project.
- F. Full-Size Samples, For Review:
  - 1. Basic Shapes: One of each.
  - 2. Accent, Trim and Specialty Shapes: One of each.
- G. Source Quality Control Test Reports.
- H. Manufacturer's Qualification Data: Documentation showing compliance with specified requirements.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications:
  - 1. A firm with a minimum of 5 years experience producing cast stone of types required for project.
  - 2. Current producer member of the Cast Stone Institute or the Architectural Precast Association.
  - 3. Manufacturer's production facility currently holds a Plant Certification from the Cast Stone Institute or the Architectural Precast Association.
  - 4. Adequate plant capacity to furnish quality, sizes, and quantity of cast stone required without delaying progress of the work.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience and approved by manufacturer.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver cast stone components secured to shipping pallets and protected from damage and discoloration. Protect corners from damage.
- B. Number each piece individually to match shop drawings and schedule.
- C. Store cast stone components and installation materials in accordance with manufacturer's instructions.
- D. Store cast stone components on pallets with nonstaining, waterproof covers. Ventilate under covers to prevent condensation. Prevent contact with dirt.
- E. Protect cast stone components during handling and installation to prevent chipping, cracking, or other damage.
- F. Store mortar materials where contamination can be avoided.

- G. Schedule and coordinate production and delivery of cast stone components with unit masonry work to optimize on-site inventory and to avoid delaying the work.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Architectural Cast Stone:
1. Any current producer member of the Architectural Precast Association.
  2. Any current producer member of the Cast Stone Institute.

### **2.02 MATERIALS**

- A. Portland Cement: ASTM C150/C150M.
1. For Units: Type I or II, white.
  2. For Mortar: Type I or II, except Type III may be used in cold weather.
- B. Coarse Aggregate: ASTM C33/C33M, except for gradation; granite, quartz, or limestone.
- C. Fine Aggregate: ASTM C33/C33M, except for gradation; natural or manufactured sands.
- D. Pigments: ASTM C979, inorganic iron oxides; do not use carbon black.
- E. Admixtures: ASTM C494/C494M.
1. ASTM C 260 for air-entraining admixtures.
  2. ASTM C 494/C 495M Types A - G for water reducing, retarding, accelerating and high range admixtures.
  3. Other admixtures: Integral water repellents and other chemicals, for which no ASTM Standard exists, shall be previously established as suitable for use in concrete by proven field performance or through laboratory testing.
  4. ASTM C 618 mineral admixtures of dark and variable colors shall not be used in surfaces intended to be exposed to view.
  5. ASTM C 989 granulated blast furnace slag may be used to improve physical properties. Tests are required to verify these features.
- F. Water: Potable.
- G. Reinforcing Bars: ASTM A615/A615M, Grade 40 (40,000 psi), deformed bars, galvanized.
1. Galvanized in accordance with ASTM A767/A767M, Class I.
- H. Steel Welded Wire Reinforcement: ASTM A1064/A1064M, galvanized or ASTM A884/A884M, epoxy coated.
- I. Embedded Anchors, Dowels, and Inserts: Type 304 stainless steel, of type and size as required for conditions.
- J. Mortar: Portland cement-lime, as specified in Section 04 05 11 ; do not use masonry cement.
- K. Cleaner: General-purpose cleaner designed for removing mortar and grout stains, efflorescence, and other construction stains from new masonry surfaces without discoloring or damaging masonry surfaces; approved for intended use by cast stone manufacturer and by cleaner manufacturer for use on cast stone and adjacent masonry materials.

### **2.03 SOURCE QUALITY CONTROL**

- A. Test compressive strength and absorption of specimens selected at random from plant production.
1. Test in accordance with ASTM C642.
  2. Select specimens at rate of 3 per 500 cubic feet, with a minimum of 3 per production week.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Examine construction to receive cast stone components. Notify Architect if construction is not acceptable.
- B. Do not begin installation until unacceptable conditions have been corrected.

**3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Install cast stone components in conjunction with masonry, complying with requirements of Section 04 20 00.
- C. Setting:
  - 1. Drench cast stone components with clear, running water immediately before installation.
  - 2. Set units in a full bed of mortar unless otherwise indicated.
  - 3. Fill vertical joints with mortar.
  - 4. Fill dowel holes and anchor slots completely with mortar or non-shrink grout.

**3.03 TOLERANCES**

- A. Joints: Make all joints 3/8 inch, except as otherwise detailed.
  - 1. Rake mortar joints 3/4 inch for pointing.
  - 2. Remove excess mortar from face of stone before pointing joints.
  - 3. Point joints with mortar in layers 3/8 inch thick and tool to a slight concave profile.
  - 4. Leave the following joints open for sealant:
    - a. Head joints in top courses, including sills and watertables.
    - b. Joints labeled "expansion joint".
- B. Installation Tolerances:
  - 1. Variation from Plumb: Not more than 1/8 inch in 10 feet or 1/4 inch in 20 feet or more.
  - 2. Variation from Level: Not more than 1/8 inch in 10 feet or 1/4 inch in 20 feet, or 3/8 inch maximum.
  - 3. Variation in Joint Width: Not more than 1/8 inch in 36 inches or 1/4 of nominal joint width, whichever is less.
  - 4. Variation in Plane Between Adjacent Surfaces (Lipping): Not more than 1/16 inch difference between planes of adjacent units or adjacent surfaces indicated to be flush with units.

**3.04 REPAIR**

- A. Repair chips and other surface damage noticeable when viewed in direct daylight at 20 feet.
  - 1. Repair with matching touch-up material provided by the manufacturer and in accordance with manufacturer's instructions.
  - 2. Repair methods and results subject to Architect's approval.

**3.05 INSPECTION AND ACCEPTANCE**

- A. Inspect finished installation according to Cast Stone Institute Technical Bulletin #36.
- B. Do not apply field water repellent until repair, cleaning, inspection and acceptance is completed.

**3.06 WATER REPELLENT**

- A. Apply water repellent in accordance with Cast Stone Institute Technical Bulletin #35 or water repellent manufacturer's directions.

**3.07 CLEANING**

- A. Keep cast stone components clean as work progresses.

**3.08 PROTECTION**

- A. Protect completed work from damage.
- B. Clean, repair, or restore damaged or mortar-splashed work to condition of new work.

**END OF SECTION 04 72 00**

**SECTION 04 73 00 - MANUFACTURED STONE MASONRY****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Adhered manufactured stone masonry veneer (AMSMV).
- B. Installation materials.
- C. Accessories.

**1.02 RELATED REQUIREMENTS**

- A. Section 04 20 00 - Unit Masonry: Through-wall masonry flashings.
- B. Section 04 72 00 - Cast Stone Masonry: Sills and Watertable units.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene one week before starting work of this section.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for AMSMV units, mortar, and water-resistive barrier, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Color charts.
  - 4. Installation methods.
- C. Shop Drawings: Submit detail drawings depicting proper installation and flashing techniques. Coordinate locations with those found on drawings.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 12 inches square, representing actual product, color, patterns and texture.
- F. Samples: Submit four samples of AMSMV units to illustrate color, texture, and extremes of color range.
- G. Manufacturer's Certificate: Certify that AMSMV units and mortar meet or exceed specified requirements.
- H. Installer's Qualification Statement.
- I. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.05 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing work of type specified, with at least five years of documented experience.

**1.06 MOCK-UPS**

- A. Construct mock-up panel 8 feet long by 6 feet high; include AMSMV, mortar, accessories, substrate, and representative wall openings.
- B. See Section 01 40 00 - Quality Requirements for additional requirements.
- C. Locate where directed.
- D. Mock-up (if accepted) may remain as part of the work.

**1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Prevent mechanical damage and contamination by other materials.
- C. Protect products from precipitation combined with freezing temperatures. Do not install products with visible frozen moisture.
- D. Protect Portland cement based materials from moisture and humidity. Store under cover off the ground in a dry location.

**1.08 FIELD CONDITIONS**

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

**1.09 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Adhered Manufactured Stone Masonry Veneer (AMSMV):
  - 1. Basis of Design: Eldorado Stone; Beach Pebble Ledgecut 33: [www.eldoradostone.com/#sle](http://www.eldoradostone.com/#sle).
  - 2. Coronado Stone Products: [www.coronado.com/#sle](http://www.coronado.com/#sle).
  - 3. Arriscraft: <https://arriscraft.com/>
  - 4. Veneerstone, LLC: <https://veneerstonellc.com/>
  - 5. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 ADHERED MANUFACTURED STONE MASONRY VENEER (AMSMV)**

- A. AMSMV: Cast masonry units using a mixture of cement, lightweight aggregates, concrete additives and color pigments to replicate appearance of natural stone and designed to be applied with a cementitious mortar to a backing surface, complying with ASTM C1670/C1670M and ICC-ES AC51.
  - 1. Color, Texture, Range, Special Shapes: As selected by Architect from manufacturer's standard styles.
  - 2. Walls: Provide with blended color/texture:
- B. AMSMV Trim: Provide drip ledges and corner stones.

**2.03 MORTAR APPLICATIONS**

- A. Use only factory premixed packaged dry materials for mortar, with addition of water only at project site.
  - 1. Exception: If a specified mix design is not available in a premixed dry package, provide equivalent mix design using standard non-premixed materials.
- B. Mortar Color: Natural gray unless otherwise indicated.
- C. Setting Bed Mortars: Setting bed used to adhere AMSMV units to scratch coat mortar or to bondable concrete or concrete masonry.
  - 1. Prepackaged/Preblended: ASTM C1714/C1714M, Type S.
- D. Pointing Mortars: Pointing or grouting mortars used to fill the joints between individual AMSMV units once the setting bed mortar has sufficiently cured.
  - 1. Prepackaged/Preblended: ASTM C1714/C1714M, Type S.

**2.04 ACCESSORIES**

- A. Bonding Compound: Provide type recommended for bonding scratch coat to solid surfaces, complying with ASTM C932.
- B. Cleaning Solution: Non-acidic, not harmful to AMSMV work or adjacent materials, approved by AMSMV manufacturer.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that backup wall system construction complies with AMSMV manufacturer's instructions, NCMA (AMSV), NCMA TEK 20-01, ASTM C1780 and ICC-ES AC51.
- B. Verify that related items provided under other sections are properly sized and located.
- C. Verify that built-in items are in proper location, and ready for installation of AMSMV.

**3.02 PREPARATION**

- A. Dampen masonry surfaces to reduce excessive suction.
- B. Clean concrete surfaces of foreign matter using approved acid solutions, solvents, or detergents, and then rinse surfaces thoroughly with clean water.
- C. Roughen smooth concrete surfaces and apply bonding compound in accordance with manufacturer's written installation instructions.
- D. Apply dash bond coat to solid bases and moist cure for at least 24 hours before applying setting bed.

**3.03 INSTALLATION - SCRATCH COAT**

- A. Apply mortar scratch coat of 1/2 inch nominal to cover metal lath in accordance with ASTM C926. Scratch surface when somewhat firm. If scratch coat dries before applying setting bed mortar and AMSMV, moisten scratch coat by misting it with water.

**3.04 INSTALLATION - AMSMV**

- A. Install AMSMV with a cementitious mortar setting bed to a scratch coat backing surface, in accordance with AMSMV manufacturer's instructions, NCMA (AMSV), NCMA TEK 20-01, ASTM C1780 and ICC-ES AC51.
- B. Mortar Joints: Concave.
  - 1. Style: Tight fit joints.
- C. Windows, Doors and Wall Openings: Butt AMSMV units to wall opening.
- D. Sills: Install sills where located on drawings.
- E. Seal all joints at wall openings and penetrations with sealant approved for use with AMSMV.

**3.05 INSTALLATION - MASONRY FLASHINGS**

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.
- B. Extend metal flashings through exterior face of AMSMV and terminate in an angled drip with hemmed edge.
- C. Lap end joints of flashings at least 6 inches, minimum, and seal watertight with flashing sealant/adhesive.

**3.06 CUTTING AND FITTING**

- A. Cut and fit for pipes and conduit. Coordinate with other sections of work to provide correct size, shape, and location.

**3.07 CLEANING**

- A. Remove excess mortar and mortar smears as work progresses.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with cleaning solution.

**3.08 PROTECTION**

- A. Protect finished work from rain during and for 48 hours following installation.
- B. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.

**END OF SECTION 04 73 00**

## SECTION 05 12 00 - STRUCTURAL STEEL FRAMING

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Structural steel framing members.
- B. Grouting under base plates.

#### 1.02 REFERENCE STANDARDS

- A. AISC (MAN) - Steel Construction Manual; 2023.
- B. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges; 2022.
- C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- D. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2022.
- E. ASTM A449 - Standard Specification for Hex Cap Screws, Bolts and Studs, Steel, Heat Treated, 120/105/90 ksi Minimum Tensile Strength, General Use; 2014 (Reapproved 2020).
- F. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2023.
- G. ASTM A563/A563M - Standard Specification for Carbon and Alloy Steel Nuts (Inch and Metric); 2021a.
- H. ASTM A992/A992M - Standard Specification for Structural Steel Shapes; 2022.
- I. ASTM F436/F436M - Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.
- J. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength; 2020.
- K. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2023.
- L. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.
- M. AWS B2.1/B2.1M - Specification for Welding Procedure and Performance Qualification; 2021, with Errata (2023).
- N. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- O. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172; 2019.
- P. RCSC (HSBOLT) - Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2020.
- Q. SSPC-SP 3 - Power Tool Cleaning; 2018.

#### 1.03 SUBMITTALS

- A. Shop Drawings:
  - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
  - 2. Connections not detailed.
  - 3. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.
- B. Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.
- C. Mill Test Reports: Indicate structural strength, destructive test analysis and non-destructive test analysis.
- D. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding



- work.
- E. Fabricator's Qualification Statement.
  - F. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

#### **1.04 QUALITY ASSURANCE**

- A. Fabricate structural steel members in accordance with AISC (MAN) "Steel Construction Manual."
- B. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and no more than 12 months before start of scheduled welding work.
- C. Fabricator Qualifications: A qualified steel fabricator that is certified by AISC - BU Certification.
- D. Design connections not detailed on drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Steel Angles and Plates: ASTM A36/A36M.
- B. Steel W Shapes and Tees: ASTM A992/A992M.
- C. Rolled Steel Structural Shapes: ASTM A992/A992M.
- D. Cold-Formed Structural Tubing: ASTM A500/A500M, Grade C.
- E. Pipe: ASTM A53/A53M, Grade B, Finish black.
- F. High-Strength Structural Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, with matching compatible ASTM A563/A563M nuts and ASTM F436/F436M washers.
- G. Unheaded Anchor Rods: ASTM F1554, Grade 55, plain, with matching ASTM A563 or ASTM A563M nuts and ASTM F436/F436M Type 1 washers.
- H. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- I. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
  - 1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
  - 2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.
- J. Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.
- K. Touch-Up Primer for Galvanized Surfaces: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

#### **2.02 FABRICATION**

- A. Shop fabricate to greatest extent possible.
- B. Fabricate connections for bolt, nut, and washer connectors.

#### **2.03 FINISH**

- A. Prepare structural component surfaces in accordance with SSPC-SP 3.
- B. Shop prime structural steel members. Do not prime surfaces that will be field welded, in contact with concrete, or high strength bolted.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

#### **3.02 ERECTION**

- A. Erect structural steel in compliance with AISC 303.

- B. Allow for erection loads and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing.
- C. Field weld components and shear studs indicated on shop drawings.
- D. Use carbon steel bolts only for temporary bracing during construction, unless otherwise specifically permitted on drawings. Install high-strength bolts in accordance with RCSC (HSBOLT) "Specification for Structural Joints Using High-Strength Bolts".
- E. Do not field cut or alter structural members without approval of Architect.
- F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.
- G. Grout solidly between column plates and bearing surfaces, complying with manufacturer's instructions for nonshrink grout. Trowel grouted surfaces smooth, splaying neatly to 45 degrees.

### **3.03 TOLERANCES**

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

### **3.04 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 - Quality Requirements.
- B. High-Strength Bolts: Provide testing and verification of field-bolted connections in accordance with RCSC (HSBOLT) "Specification for Structural Joints Using High-Strength Bolts," testing at least \_\_\_\_ percent of bolts at each connection.

**END OF SECTION 05 12 00**

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**SECTION 05 21 00 - STEEL JOIST FRAMING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Open web steel joists and shear stud connectors, with bridging, attached seats and anchors.

**1.02 RELATED REQUIREMENTS**

- A. Section 05 12 00 - Structural Steel Framing: Grouting base plates and bearing plates. Superstructure framing.
- B. Section 05 31 00 - Steel Decking: Bearing plates and angles.
- C. Section 05 50 00 - Metal Fabrications: Non-framing steel fabrications attached to joists.

**1.03 REFERENCE STANDARDS**

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- B. ASTM A563/A563M - Standard Specification for Carbon and Alloy Steel Nuts (Inch and Metric); 2021a.
- C. ASTM F436/F436M - Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2019.
- D. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2023.
- E. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- F. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172; 2019.
- G. SJI 100 - Standard Specifications for K-Series, LH-Series, and DLH-Series Open Web Steel Joists, and for Joist Girders; 2020.
- H. SJI Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders; 2008.
- I. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 2004.
- J. SSPC-SP 2 - Hand Tool Cleaning; 2018.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate standard designations, joist coding, configurations, sizes, spacings, cambers, locations of joists, joist leg extensions, bridging, connections, and attachments.
- C. Designer's Qualification Statement.
- D. Manufacturer's Qualification Statement.
- E. Fabricator's Qualification Statement.
- F. Erector's Qualification Statement.

**1.05 QUALITY ASSURANCE**

- A. Design connections not detailed on drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.
- B. Perform Work, including that for headers and other supplementary framing, in accordance with SJI 100 Standard Specifications Load Tables and SJI Technical Digest No. 9.
- C. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.
- D. Erector Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector Category CSE.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Transport, handle, store, and protect products to SJI requirements.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Steel Joists:
  - 1. Canam Group Inc: [www.canam-steeljoists.ws](http://www.canam-steeljoists.ws)
  - 2. Nucor-Vulcraft Group: [www.vulcraft.com/#sle](http://www.vulcraft.com/#sle).
  - 3. New Millennium Building Systems: [www.newmill.com](http://www.newmill.com).
  - 4. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 MATERIALS**

- A. Open Web Joists: SJI Type K Joists and joist substitutes:
  - 1. Provide bottom chord extensions as indicated.
  - 2. Minimum End Bearing on Steel Supports: Comply with referenced SJI standard.
  - 3. Minimum End Bearing on Concrete or Masonry Supports: Comply with referenced SJI standard.
- B. High-Strength Structural Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1, with matching compatible ASTM A563/A563M nuts and ASTM F436/F436M washers.
- C. Structural Steel For Supplementary Framing and Joist Leg Extensions: ASTM A36/A36M.
- D. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- E. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

**2.03 FABRICATION**

- A. Frame special sized openings in joist web framing as detailed.

**2.04 FINISH**

- A. Shop prime joists as specified.
- B. Prepare surfaces to be finished in accordance with SSPC-SP 2.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify existing conditions prior to beginning work.

**3.02 ERECTION**

- A. Erect joists with correct bearing on supports.
- B. Allow for erection loads. Provide sufficient temporary bracing to maintain framing safe, plumb, and in true alignment.
- C. Coordinate the placement of anchors for securing loose bearing members furnished as part of the work of this section.
- D. After joist alignment and installation of framing, field weld joist seats to steel bearing surfaces.
- E. Install supplementary framing for floor and roof openings greater than 18 inches.
- F. Do not permit erection of decking until joists are braced, bridged, and secured or until completion of erection and installation of permanent bridging and bracing.
- G. Do not field cut or alter structural members without approval of joist manufacturer.
- H. After erection, prime welds, damaged shop primer, damaged galvanizing, and surfaces not shop primed, except surfaces specified not to be primed.

**3.03 TOLERANCES**

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Alignment: 1/4 inch.

**3.04 FIELD QUALITY CONTROL**

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 - Quality Requirements.

**END OF SECTION 05 21 00**

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**SECTION 05 31 00 - STEEL DECKING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Roof deck.
- B. Supplementary framing for openings up to and including 18 inches.
- C. Bearing plates and angles.
- D. Acoustical insulation in roof deck flutes.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 30 00 - Cast-in-Place Concrete: Concrete topping over metal deck.
- B. Section 04 20 00 - Unit Masonry: Placement of anchors for bearing plates embedded in unit masonry assemblies.
- C. Section 05 12 00 - Structural Steel Framing: Support framing for openings larger than 18 inches and shear stud connectors.
- D. Section 05 12 00 - Structural Steel Framing: Placement of embedded steel anchors for bearing plates in cast-in-place concrete.
- E. Section 05 21 00 - Steel Joist Framing: Support framing for openings larger than 18 inches and shear stud connectors.
- F. Section 05 21 00 - Steel Joist Framing: Placement of embedded steel anchors for bearing plates and joist seats in cast-in-place concrete.

**1.03 REFERENCE STANDARDS**

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- C. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- D. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel; 2018, with Errata (2022).
- E. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel AC172; 2019.
- F. ICC-ES AC43 - Acceptance Criteria for Steel Deck Roof and Floor Systems; 2022.
- G. ICC-ES AC70 - Acceptance Criteria for Power-Actuated Fasteners Driven into Concrete, Steel and Masonry Elements; 2019, with Editorial Revision (2021).
- H. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- I. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 2004.
- J. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic); 2019.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittals procedures.
- B. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
- C. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.
- D. Certificates: Certify that products furnished meet or exceed specified requirements.
- E. Submit manufacturer's installation instructions.
- F. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

**1.05 QUALITY ASSURANCE**

- A. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.



**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Cut plastic wrap to encourage ventilation.
- B. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Steel Deck:
  - 1. Nucor-Vulcraft Group: [www.vulcraft.com/#sle](http://www.vulcraft.com/#sle).
  - 2. New Millennium Building Systems: [www.newmill.com/](http://www.newmill.com/).
  - 3. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 STEEL DECK**

- A. Roof Deck: Non-composite type, fluted steel sheet:
  - 1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 40/275, with G90/Z275 galvanized coating.
  - 2. Primer: Shop coat of manufacturer's standard primer paint over cleaned and phosphatized substrate.
  - 3. Structural Properties: As Indicated.
    - a. Span Design: Multiple.
  - 4. Minimum Base Metal Thickness: 20 gauge, .0359 inch.
  - 5. Nominal Height: 1 1/2 inch.
  - 6. Profile: Fluted, SDI WR.
  - 7. Formed Sheet Width: 36 inch.
  - 8. Side Joints: Lapped, mechanically fastened.
  - 9. End Joints: Lapped, welded.
- B. Composite Floor Deck: Fluted steel sheet embossed to interlock with concrete:
  - 1. Galvanized Steel Sheet: ASTM A653/A653M, Structural Steel (SS) Grade 50/340, Class 1, 2, or 4, with G60/Z180 galvanized coating.
    - a. 50 ksi yield strength.
  - 2. Structural Properties: As Indicated.
  - 3. Span Design: Triple.
  - 4. Minimum Base Metal Thickness: 20 gauge, .0359 inch.
  - 5. Nominal Height: 1 1/2 inches.
  - 6. Profile: Fluted, SDI WR.
  - 7. Formed Sheet Width: 36 inch.
  - 8. Side Joints: Lapped, mechanically fastened.
  - 9. End Joints: Lapped, welded.

**2.03 ACCESSORY MATERIALS**

- A. Bearing Plates and Angles: ASTM A36/A36M steel, galvanized per ASTM A123/A123M.
- B. Welding Materials: AWS D1.1/D1.1M.
- C. Fasteners: Galvanized hardened steel, self tapping.
- D. Powder Actuated Mechanical Fasteners: Steel; with knurled shank and forged ballistic point. Comply with applicable requirements of ICC-ES AC70.
- E. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
  - 1. Design Requirements for Sidelap Connections: Provide number and type of fasteners that comply with the applicable requirements of SDI (DM) design method for roof deck and floor deck applications and ICC-ES AC43.
- F. Weld Washers: Mild steel, uncoated, 3/4 inch outside diameter, 1/8 inch thick.
- G. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

- H. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.
- I. Acoustical Insulation: Glass fiber type, minimum 1.1 lb/cu ft density; profiled to suit deck.

#### **2.04 FABRICATED DECK ACCESSORIES**

- A. Sheet Metal Deck Accessories: Metal closure strips, wet concrete stops, and cover plates, 22 gauge, 0.0299 inch thick sheet steel; of profile and size as indicated; finished same as deck.
- B. Valley and ridge plates, gauge and location as indicated.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify existing conditions prior to beginning work.

#### **3.02 INSTALLATION**

- A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.
- B. On concrete and masonry surfaces provide minimum 4 inch bearing.
- C. All steel deck has been designed to be continuous over three spans minimum, and shall bear at least 1 ½ inches on steel supports. For one or two span conditions, the Contractor shall provide shoring as required, or furnish higher gage deck as required to support all the applicable loads. Contractor shall submit alternate for approval. Contractor shall ensure that construction loads on steel deck do not exceed SDI published construction load criteria.
- D. At mechanically fastened male/female side laps fasten at 24 inches on center maximum.
- E. Drive mechanical sidelap connectors completely through adjacent lapped sheets; positively engage adjacent sheets with minimum three-thread penetration.
- F. Weld deck in accordance with AWS D1.3/D1.3M.
- G. Place deck panels on supporting frame and adjust to final position with ends accurately aligned and bearing on supporting frame before being permanently fastened. Do not stretch or contract side-lap interlocks.
- H. Place deck panels flat and square and fasten to supporting frame without warp or deflection.
- I. Cut and neatly fit deck panels and accessories around openings and other work projecting through or adjacent to deck.
- J. Provide additional reinforcement and closure pieces at openings as required for strength, continuity of deck, and support of other work.
- K. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used for correcting welding work.
- L. Miscellaneous Roof-Deck Accessories: Install ridge and valley plates, finish strips, end closures, and reinforcing channels according to deck manufacturer's written instructions. mechanically fasten to substrate to provide a complete deck installation.
  - 1. Weld cover plates at changes in direction of roof-deck panels unless otherwise indicated.
- M. Flexible Closure Strips: Install flexible closure strips over partitions, walls, and where indicated. Install with adhesive according to manufacturer's written instructions to ensure complete closure.
- N. Pour Stops and Girder Fillers: Weld steel sheet pour stops and girder fillers to supporting structure according to SDI recommendations unless otherwise indicated.
- O. Floor-Deck Closures: Weld steel sheet column closures, cell closures, and Z-closures to deck, according to SDI recommendations, to provide tight-fitting closures at open ends

- of ribs and sides of deck.
- P. Install piercing hanger tabs at 14 inches apart in both directions, within 9 inches of walls at ends, and not more than 12 inches from walls at sides unless otherwise indicated.
  - Q. At deck openings from 6 inches to 18 inches in size, provide 2 by 2 by 1/4 inch steel angle reinforcement. Place angles perpendicular to flutes; extend minimum two flutes beyond each side of opening and fusion weld to deck at each flute.
  - R. At deck openings greater than 18 inches in size, provide steel angle reinforcement. as specified in Section 05 12 00.
  - S. Where deck (other than cellular deck electrical raceway) changes direction, install 6 inch minimum wide sheet steel cover plates, of same thickness as deck. Fusion weld 12 inches on center maximum.
  - T. At floor edges, install concrete stops upturned to top surface of slab, to contain wet concrete. Provide stops of sufficient strength to remain stationary without distortion.
  - U. At openings between deck and walls, columns, and openings, provide sheet steel closures and angle flashings to close openings.
  - V. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

**END OF SECTION 05 31 00**

**SECTION 05 50 00 - METAL FABRICATIONS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Shop fabricated steel items.

**1.02 RELATED REQUIREMENTS**

- A. Section 03 30 00 - Cast-in-Place Concrete: Placement of metal fabrications in concrete.
- B. Section 04 20 00 - Unit Masonry: Placement of metal fabrications in masonry.
- C. Section 05 12 00 - Structural Steel Framing: Structural steel column anchor bolts.
- D. Section 05 31 00 - Steel Decking: Bearing plates for metal deck bearing, including anchorage.
- E. Section 09 91 13 - Exterior Painting: Paint finish.
- F. Section 09 91 23 - Interior Painting: Paint finish.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
  - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
  - 2. Design data: Submit drawings and supporting calculations, signed and sealed by a qualified professional structural engineer.
    - a. Include the following, as applicable:
      - 1) Design criteria.
      - 2) Engineering analysis depicting stresses and deflections.
      - 3) Member sizes and gauges.
      - 4) Details of connections.
      - 5) Support reactions.
      - 6) Bracing requirements.

**1.04 QUALITY ASSURANCE**

- A. Design under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State in which the Project is located.
- B. Welder Qualifications: Welding processes and welding operators qualified in accordance with AWS D1.1/D1.1M and AWS D1.2/D1.2M and dated no more than 12 months before start of scheduled welding work.
- C. Fabricator Qualifications: A qualified steel fabricator that is accredited by IAS AC172.

**PART 2 PRODUCTS****2.01 MATERIALS - STEEL**

- A. Steel Sections: ASTM A36/A36M.
- B. Plates: ASTM A283/A283M.
- C. Pipe: ASTM A53/A53M, Grade B Schedule 40, hot-dip galvanized finish.
- D. Slotted Channel Framing: ASTM A653/A653M, Grade 33.
- E. Slotted Channel Fittings: ASTM A1011/A1011M.
- F. Bolts, Nuts, and Washers: ASTM A307, Grade A, galvanized to ASTM A153/A153M where connecting galvanized components.
- G. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- H. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

- I. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

## **2.02 FABRICATION**

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- E. Furnish components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

## **2.03 FABRICATED ITEMS**

- A. Bollards: Steel pipe, concrete filled, crowned cap, as detailed; galvanized and paint finish.

## **2.04 FINISHES - STEEL**

- A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- B. Prime Painting: One coat.
- C. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.
- D. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

## **2.05 FABRICATION TOLERANCES**

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that field conditions are acceptable and are ready to receive work.

### **3.02 PREPARATION**

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Furnish setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

### **3.03 INSTALLATION**

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components as indicated on drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Obtain approval prior to site cutting or making adjustments not scheduled.

### **3.04 TOLERANCES**

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.
- C. Maximum Out-of-Position: 1/4 inch.

**END OF SECTION 05 50 00**

## SECTION 06 10 53 - MISCELLANEOUS ROUGH CARPENTRY

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Preservative treated wood materials.
- B. Fire retardant treated wood materials.
- C. Communications and electrical room mounting boards.
- D. Concealed wood blocking, nailers, and supports.
- E. Miscellaneous wood nailers, furring, and grounds.

#### 1.02 REFERENCE STANDARDS

- A. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- C. AWPA U1 - Use Category System: User Specification for Treated Wood; 2024.
- D. PS 1 - Structural Plywood; 2023.
- E. PS 20 - American Softwood Lumber Standard; 2021.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide technical data on wood preservative materials and application instructions.

#### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.
- B. Fire Retardant Treated Wood: Prevent exposure to precipitation during shipping, storage, and installation.

#### 1.05 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

### PART 2 PRODUCTS

#### 2.01 GENERAL REQUIREMENTS

- A. Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
  - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
  - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee ([www.alsc.org](http://www.alsc.org)) and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

#### 2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A. Sizes: Nominal sizes as indicated on drawings, S4S.
- B. Moisture Content: S-dry or MC19.
- C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
  - 1. Lumber: S4S, No.2 or Standard Grade.
  - 2. Boards: Standard or No.3.

#### 2.03 CONSTRUCTION PANELS

- A. Communications and Electrical Room Mounting Boards: PS 1, A-D plywood, or medium density fiberboard; 3/4 inch thick; flame spread index of 25 or less, smoke

developed index of 450 or less, when tested in accordance with ASTM E84.

#### **2.04 ACCESSORIES**

- A. Fasteners and Anchors:
  - 1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
  - 2. Anchors: Toggle bolt type for anchorage to hollow masonry.

#### **2.05 FACTORY WOOD TREATMENT**

- A. Treated Lumber and Plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
  - 1. Fire-Retardant Treated Wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.
  - 2. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWPA standards.

### **PART 3 EXECUTION**

#### **3.01 INSTALLATION - GENERAL**

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

#### **3.02 BLOCKING, NAILERS, AND SUPPORTS**

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fireblocking as required by applicable local code, to close concealed draft openings between floors and between top story and roof/attic space; other material acceptable to code authorities may be used in lieu of solid wood blocking.
- C. In metal stud walls, provide continuous blocking around door and window openings for anchorage of frames, securely attached to stud framing.
- D. In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- E. Provide the following specific nonstructural framing and blocking:
  - 1. Cabinets and shelf supports.
  - 2. Wall brackets.
  - 3. Handrails.
  - 4. Grab bars.
  - 5. Towel and bath accessories.
  - 6. Wall-mounted door stops.

#### **3.03 ROOF-RELATED CARPENTRY**

- A. Coordinate installation of roofing carpentry with deck construction, framing of roof openings, and roofing assembly installation.
- B. Provide wood curb at roof openings except where prefabricated curbs are specified and where specifically indicated otherwise. Form corners by alternating lapping side members.

### **3.04 INSTALLATION OF CONSTRUCTION PANELS**

- A. Communications and Electrical Room Mounting Boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches on center on edges and into studs in field of board.
  - 1. At fire-rated walls, install board over wall board indicated as part of the fire-rated assembly.
  - 2. Where boards are indicated as full floor-to-ceiling height, install with long edge of board parallel to studs.
  - 3. Install adjacent boards without gaps.

### **3.05 CLEANING**

- A. Waste Disposal: See Section 01 74 19 - Construction Waste Management and Disposal.
  - 1. Comply with applicable regulations.
  - 2. Do not burn scrap on project site.
  - 3. Do not burn scraps that have been pressure treated.
  - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or "waste-to-energy" facilities.
- B. Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C. Prevent sawdust and wood shavings from entering the storm drainage system.

**END OF SECTION 06 10 53**



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## SECTION 06 41 00 - ARCHITECTURAL WOOD CASEWORK

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Specially fabricated cabinet units.
- B. Hardware.

#### 1.02 RELATED REQUIREMENTS

- A. Section 12 36 00 - Countertops.

#### 1.03 REFERENCE STANDARDS

- A. ANSI A208.1 - American National Standard for Particleboard; 2022.
- B. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards, 2nd Edition; 2014, with Errata (2016).
- C. AWMAC/WI (NAAWS) - North American Architectural Woodwork Standards; 2021, with Errata.
- D. BHMA A156.9 - Cabinet Hardware; 2020.
- E. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

#### 1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting not less than one week before starting work of this section; require attendance by all affected installers.

#### 1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories.
- C. Product Data: Provide data for hardware accessories.
- D. Samples: Submit actual samples of architectural cabinet construction, minimum 12 inches square, illustrating proposed cabinet, countertop, and shelf unit substrate and finish.
- E. Samples: Submit actual sample items of proposed pulls, hinges, shelf standards, and locksets, demonstrating hardware design, quality, and finish.

#### 1.06 QUALITY ASSURANCE

- A. Fabricator Qualifications: Company specializing in fabricating the products specified in this section with minimum five years of documented experience.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Protect units from moisture damage.

#### 1.08 FIELD CONDITIONS

- A. During and after installation of custom cabinets, maintain temperature and humidity conditions in building spaces at same levels planned for occupancy.

### PART 2 PRODUCTS

#### 2.01 CABINETS

- A. Quality Standard: Premium Grade, in accordance with  $\{\rs\#1\}$ , unless noted otherwise.
- B. Plastic Laminate Faced Cabinets: Premium grade.
- C. Cabinets:
  - 1. Finish - Exposed Exterior Surfaces: decorative laminate.
  - 2. Finish - Exposed Interior Surfaces: low pressure melamine overlay.
  - 3. Finish - Semi-Exposed Surfaces: low pressure melamine overlay.
  - 4. Finish - Concealed Surfaces: Manufacturer's option.
  - 5. Door and Drawer Front Edge Profiles: Square edge with thin applied band.

6. Door and Drawer Front Retention Profiles: Fixed panel.
  7. Casework Construction Type: Type A - Frameless.
  8. Interface Style for Cabinet and Door: Style 1 - Overlay; flush overlay.
  9. Grained Face Layout for Cabinet and Door Fronts: Flush panel.
    - a. Premium Grade:
      - 1) Provide vertical run and match for doors, drawer fronts and false fronts within each cabinet unit.
      - 2) Provide well-matched doors, drawer fronts and false fronts across multiple cabinet faces in one elevation.
  10. Adjustable Shelf Loading: 40 psf.
- D. Cabinet Materials:
1. Drawer Side Construction: Multiple-dovetailed.
  2. Drawer Construction Technique: Dovetail joints.
  3. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.
  4. Drawer Sides and Back: Solid-hardwood lumber.
  5. Drawer Bottoms: Hardwood plywood.
  6. Dust Panels: 1/4" plywood or tempered hardboard above compartments and drawers unless located directly under tops.
  7. Concealed backs of panels with exposed plastic-laminate surfaces: high-pressure decorative laminate.

## **2.02 WOOD-BASED COMPONENTS**

- A. Wood fabricated from old growth timber is not permitted.

## **2.03 PANEL CORE MATERIALS**

- A. Particleboard: Composite panel composed of cellulosic particles, additives, and bonding system; comply with ANSI A208.1.
1. Grade: M-2; moisture resistance: MR10.
  2. Use of particleboard in millwork to be located in wet use areas, is prohibited.
- B. Plywood: DOC PS 1, medium-density overlay, provide Marine-Grade.

## **2.04 THERMALLY FUSED LAMINATE PANELS**

- A. Thermally Fused Laminate (TFL): Melamine-resin-saturated decorative papers; for fusion to composite wood substrates under heat and pressure.
1. Test in accordance with NEMA LD 3 Section 3.
  2. Color: White.

## **2.05 LAMINATE MATERIALS**

- A. Manufacturers:
1. Formica Corporation: [www.formica.com](http://www.formica.com).
  2. Wilsonart: [www.wilsonart.com](http://www.wilsonart.com).
  3. Lamin-Art, inc.
- B. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.
- C. Provide specific types as follows:
1. Horizontal Surfaces: HGS, 0.048 inch nominal thickness, through color, color as selected, finish as indicated.
  2. Vertical Surfaces: VGS, 0.028 inch nominal thickness, through color, color as selected, finish as indicated.
  3. Post-Formed Horizontal Surfaces: HGP, 0.039 inch nominal thickness, through color, color as selected, finish as indicated.
  4. Post-Formed Vertical Surfaces: VGP, 0.028 inch nominal thickness, through color, color as selected, finish as indicated.

- D. Colors, Patterns, and Finishes: As selected by Architect from laminate manufacturer's full range. Finish noted on drawings is basis of design.

## 2.06 COUNTERTOPS

- A. Countertops: See Section 12 36 00.

## 2.07 ACCESSORIES

- A. Adhesive: Type recommended by fabricator to suit application.
- B. Edge Banding: PVC, 1/8-inch thick, flat shaped; smooth finish; self locking serrated tongue; of width to match component thickness.
  - 1. Color: matching laminate in color, pattern and finish.
- C. Fasteners: Size and type to suit application.
- D. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; galvanized or chrome-plated finish in concealed locations and stainless steel or chrome-plated finish in exposed locations.
- E. Grommets: Standard plastic grommets for cut-outs, in color to blend with adjacent surface.

## 2.08 HARDWARE

- A. Cabinet Hardware: Comply with BHMA A156.9 for hardware types and grades indicated below:
  - 1. Hardware Types: As indicated on drawings.
  - 2. Product Grade: Grade 2.
- B. Adjustable Shelf Standards and Supports (Heavy Duty): ANSI/BHMA A156.9, B04102; with shelf brackets, B04112.
- C. Shelf Rests: ANSI/BHMA A156.9, B04013; metal.
- D. Countertop Support Brackets: Fixed, L-shaped, face-of-stud mounting.
  - 1. Materials: Steel; T-shape cross-section.
    - a. Finish: Manufacturer's standard, factory-applied, powder coat.
    - b. Color: Black.
- E. Bar Pulls: Back mounted, solid metal.
  - 1. Basis of Design: Liberty Hardware.
  - 2. Style: Plaza Pull,
  - 3. Material: Aluminum
  - 4. Length: 5-5/16"
  - 5. Projection: 1-1/16"
  - 6. Width: 1/2"
  - 7. Finish: Stainless
- F. Drawer Slides: side mounted and extending under bottom edge of drawer.
  - 1. Type: Full extension with overtravel.
  - 2. Material: zinc-plated steel ball-bearing slides.
  - 3. Static Load Capacity: Commercial grade.
  - 4. Mounting: Side mounted.
  - 5. Stops: Integral type.
  - 6. Features: Provide self closing/stay closed type.
  - 7. For drawers not more than 3 inches high, but no more than 6 inches high and not more than 24 inches wide, provide Grade 1HD-100.
  - 8. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1HD-200
- G. Hinges: European style concealed self-closing type, steel with satin finish.
- H. Door and Drawer Silencers: BHMA A156.16, L03011.
- I. Door Locks: ANSI/BHMA A156.11, E07121.
- J. Drawer Locks: ANSI/BHMA A156.11, E07041.

**2.09 FABRICATION**

- A. Assembly: Shop assemble cabinets for delivery to site in units easily handled and to permit passage through building openings.
- B. Edging: Fit shelves, doors, and exposed edges with specified edging. Do not use more than one piece for any single length.
- C. Fitting: When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide matching trim for scribing and site cutting.
- D. Plastic Laminate: Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
- E. Matching Wood Grain: Comply with requirements of quality standard for specified Grade and as follows:
  - 1. Provide sequence matching across each elevation.

**2.10 SHOP FINISHING**

- A. Sand work smooth and set exposed nails and screws.
- B. For opaque finishes, apply wood filler in exposed nail and screw indentations and sand smooth.
- C. On items to receive transparent finishes, use wood filler matching or blending with surrounding surfaces and of types recommended for applied finishes.
- D. Finish work in accordance with  $\{rs\#1\}$  or  $\{rs\#1\}$ , Section 5 - Finishing for grade specified.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify adequacy of backing and support framing.
- B. Verify location and sizes of utility rough-in associated with work of this section.

**3.02 INSTALLATION**

- A. Install work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS) requirements for grade indicated.
- B. Set and secure custom cabinets in place, assuring that they are rigid, plumb, and level.
- C. Use fixture attachments in concealed locations for wall mounted components.
- D. Use concealed joint fasteners to align and secure adjoining cabinet units.
- E. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.
- F. Secure cabinets to floor using appropriate angles and anchorages.
- G. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.

**3.03 ADJUSTING & TOUCH UP**

- A. Before completion of the installation, the installer shall adjust all moving and operating parts to function smoothly and correctly.
- B. All nicks, chips and scratches in the finish shall be filled and retouched. Damaged items that cannot be repaired shall be replaced.

**3.04 CLEANING**

- A. Clean casework, counters, shelves, hardware, fittings, and fixtures.

**END OF SECTION 06 41 00**

## SECTION 07 21 19 - FOAMED-IN-PLACE INSULATION

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Foamed-in-place insulation.
  - 1. In masonry cavity walls.
  - 2. In exterior framed walls.
- B. Protective intumescent coating.

#### 1.02 REFERENCE STANDARDS

- A. ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus; 2021.
- B. ASTM D2842 - Standard Test Method for Water Absorption of Rigid Cellular Plastics; 2019.
- C. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- D. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2023.

#### 1.03 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week prior to commencing work of this section.

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide product description, insulation properties, and preparation requirements.
- C. Certificates: Certify that products of this section meet or exceed specified requirements.
- D. Manufacturer's Installation Instructions: Indicate special procedures, and perimeter conditions requiring special attention.
- E. Manufacturer Qualification: Submit documentation of current evaluation of proposed manufacturer and materials.
- F. Installer Qualification: Submit documentation of current contractor accreditation and current installer certification. Keep copies of all contractor accreditation and installer certification on site during and after installation. Present on-site documentation upon request.

#### 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified, with minimum three years documented experience, and approved by manufacturer.

#### 1.06 FIELD CONDITIONS

- A. Do not apply foam when temperature is below that specified by the manufacturer for ambient air and substrate.
- B. Do not apply foam when temperature is within 5 degrees F of dew point.

### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Foamed-in-Place Insulation (Masonry Cavity):
  - 1. Basis of Design Core-Fill 500.
  - 2. Surface Burning Characteristics: Maximum flame spread, smoke developed and fuel contributed of 0, 5, and 0 respectively.
  - 3. Combustion Characteristics: Must be noncombustible, Class A building material.

4. Thermal Values: "R" Value of 4.91/inch @ 32 degrees F mean; ASTM C-177.
- B. Foamed-In-Place Insulation: Medium-density, closed cell polyurethane foam; foamed on-site, using blowing agent of water or non-ozone-depleting gas.
  1. Regulatory Requirements: Comply with applicable code for flame and smoke and concealment limitations.
  2. Thermal Resistance: R-value of 7.0, minimum, per 1 inch thickness at 75 degrees F mean temperature when tested in accordance with ASTM C518.
  3. Water Vapor Permeance: Vapor retarder; 1.0 perms, maximum, when tested at intended thickness in accordance with ASTM E96/E96M, desiccant method.
  4. Water Absorption: Less than 2 percent by volume, maximum, when tested in accordance with ASTM D2842.
  5. Closed Cell Content: At least 90 percent.
  6. Surface Burning Characteristics: Flame spread/smoke developed index of 25/450, maximum, when tested in accordance with ASTM E84.
  7. Products:
    - a. BASF Corporation: [www.spf.basf.com/#sle](http://www.spf.basf.com/#sle).
    - b. Carlisle Spray Foam Insulation: [www.carlisesfi.com/#sle](http://www.carlisesfi.com/#sle).
    - c. Gaco Western: [www.gaco.com/#sle](http://www.gaco.com/#sle).
    - d. Henry Company: [www.henry.com/#sle](http://www.henry.com/#sle).
    - e. Johns Manville: [www.jm.com/#sle](http://www.jm.com/#sle).
    - f. Substitutions: See Section 01 60 00 - Product Requirements.

## 2.02 ACCESSORIES

- A. Primer: As required by insulation manufacturer.
- B. Overcoat: Intumescent coating of type recommended by insulation manufacturer and as required to comply with applicable codes. Basis of Design: DC 315 by International Fireproof Technology, Inc.
  1. Coating Type: Single component, water-based.
  2. Protected Insulation Type: Spray polyurethane foam (SPF).
  3. Application: Apply using brush, roller, or airless sprayer.
  4. Surface Burning Characteristics: Flame spread/smoke developed index of 25/450, maximum, when tested in accordance with ASTM E84.
  5. Products:
    - a. International Fireproof Technology Inc; DC315 Intumescent Coating: [www.painttoprotect.com/#sle](http://www.painttoprotect.com/#sle).

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify work within construction spaces or crevices is complete before insulation application.

### 3.02 PREPARATION

- A. Mask and protect adjacent surfaces from over spray or dusting.
- B. Apply primer in accordance with manufacturer's instructions.

### 3.03 APPLICATION

- A. Apply insulation in accordance with manufacturer's instructions.
- B. Apply insulation by spray method, to a uniform monolithic density without voids.
- C. Apply to achieve a thermal resistance as indicated on drawings.
- D. Apply protective coating monolithically, without voids, to fully cover foam insulation, to achieve fire rating required.
- E. Patch damaged areas.

- F. Where applied to voids and gaps assure space for expansion to avoid pressure on adjacent materials that may bind operable parts.
- G. Trim excess away for applied trim or remove as required for continuous sealant bead.

**3.04 FIELD QUALITY CONTROL**

- A. See Section 01 40 00 - Quality Requirements for additional requirements.
- B. Inspection will include verification of insulation thickness and density.

**3.05 PROTECTION**

- A. Do not permit subsequent construction work to disturb applied insulation.

**END OF SECTION 07 21 19**



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## SECTION 07 41 13 - METAL ROOF PANELS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Architectural roofing system of preformed steel panels.

#### 1.02 RELATED REQUIREMENTS

- A. Section 05 12 00 - Structural Steel Framing: Roof framing and purlins.
- B. Section 07 92 00 - Joint Sealants: Sealing joints between metal roof panel system and adjacent construction.

#### 1.03 REFERENCE STANDARDS

- A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- C. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2014.
- D. ASTM B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric); 2014.
- E. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2020.
- F. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; 2005 (Reapproved 2017).
- G. ASTM E1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference; 2011 (Reapproved 2018).
- H. ASTM E1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems; 2016.
- I. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2018.

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Storage and handling requirements and recommendations.
  - 2. Installation methods.
  - 3. Specimen warranty.
- C. Shop Drawings: Include layouts of roof panels, details of edge and penetration conditions, spacing and type of connections, flashings, underlayments, and special conditions.
  - 1. Show work to be field-fabricated or field-assembled.
  - 2. Include structural analysis signed and sealed by qualified structural engineer, indicating compliance of roofing system to specified loading conditions.
- D. Selection Samples: For each roofing system specified, submit color chips representing manufacturer's full range of available colors and patterns.
- E. Manufacturer's qualification statement.
- F. Installer's qualification statement.
- G. Test Reports: Indicate compliance of metal roofing system to specified requirements.
- H. Warranty: Submit specified manufacturer's warranty and ensure that forms have been completed in Owner's name and are registered with manufacturer.

**1.05 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience and approved by manufacturer.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Provide strippable plastic protection on prefinished roofing panels for removal after installation.
- B. Store roofing panels on project site as recommended by manufacturer to minimize damage to panels prior to installation.

**1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Finish Warranty: Provide manufacturer's special warranty covering failure of factory-applied exterior finish on metal roof panels and agreeing to repair or replace panels that show evidence of finish degradation, including significant fading, chalking, cracking, or peeling within specified warranty period of twenty years from Date of Substantial Completion.
- C. Waterproofing Warranty: Provide manufacturer's warranty for weathertightness of roofing system, including agreement to repair or replace roofing that fails to keep out water within specified warranty period of five years from Date of Substantial Completion.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Basis of Design:
  - 1. Architectural Metal Roof Panels: R-Mer Span manufactured by Garland.

**2.02 PERFORMANCE REQUIREMENTS**

- A. Metal Roof Panels: Provide complete roofing assemblies, including roof panels, clips, fasteners, connectors, and miscellaneous accessories, tested for compliance with the following minimum standards:
  - 1. Structural Design Criteria: Provide panel assemblies designed to safely support design loads at support spacing indicated, with deflection not to exceed  $L/180$  of span length(L) when tested in accordance with ASTM E1592.
    - a. Dead Loads: Weight of roofing system.
    - b. Live Loads: As required by ASCE 7.
    - c. Risk Category IV Building.
  - 2. Overall: Complete weathertight system tested and approved in accordance with ASTM E1592.
  - 3. Air Infiltration: Maximum 0.06 cfm/sq ft at air pressure differential of 6.24 lbf/sq ft, when tested according to ASTM E1680.
  - 4. Water Penetration: No water penetration when tested according to procedures and recommended test pressures of ASTM E1646. Perform test immediately following air infiltration test.
  - 5. Thermal Movement: Design system to accommodate without deformation anticipated thermal movement over ambient temperature range of 100 degrees F.

**2.03 ARCHITECTURAL METAL ROOF PANELS**

- A. Architectural Metal Roof Panels: Provide complete engineered system complying with specified requirements and capable of remaining weathertight while withstanding

anticipated movement of substrate and thermally induced movement of roofing system.

- B. Architectural Metal Panels: Factory-formed panels with factory-applied finish.
  - 1. Steel Panels:
    - a. Zinc-coated steel complying with ASTM A653/A653M; minimum G90 galvanizing.
    - b. Steel Thickness: Minimum 22 gauge.
  - 2. Profile: 2 inch wide Batten seam, mechanically seamed with factory installed hot melt sealant in lap seam cap; concealed fastener system.
  - 3. Texture: Smooth.
  - 4. Length: Full length of roof slope, without lapped horizontal joints.
  - 5. Width: Maximum panel coverage of 16 inches.

#### **2.04 ATTACHMENT SYSTEM**

- A. Concealed System: Provide manufacturer's standard stainless steel or nylon-coated aluminum concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

#### **2.05 FABRICATION**

- A. Panels: Provide factory fabricated panels with applied finish and accessory items, using manufacturer's standard processes as required to achieve specified appearance and performance requirements.
- B. Joints: Provide captive gaskets, sealants, or separator strips at panel joints to ensure weathertight seals, eliminate metal-to-metal contact, and minimize noise from panel movements.

#### **2.06 FINISHES**

- A. Fluoropolymer Coil Coating System: Manufacturer's standard multi-coat aluminum coil coating system complying with AAMA 2605, including at least 70 percent polyvinylidene fluoride (PVDF) resin, and at least 80 percent of coil coated aluminum surfaces having minimum total dry film thickness (DFT) of 0.9 mil, 0.0009 inch; color and gloss as selected from full range.

#### **2.07 ACCESSORIES**

- A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
- C. Sealants:
  - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
  - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
  - 3. Seam Sealant: Factory-applied, non-skinning, non-drying type.
- D. Insulation:
  - 1. Type: Approved rigid board insulation with a current NOA have a minimum 25psi compressive strength fastened with approved fasteners and plates. Fastening density shall be in compliance with applicable Building Code and Roofing Application standard RAS 117.
    - a. Minimum Thickness: 4.4", as required to achieve listed thermal performance on drawings.
- E. Underlayment: Self-adhering rubber-modified asphalt sheet complying with ASTM D1970/D1970M; 22 mil total thickness; with strippable release film and woven

polypropylene sheet top surface.

1. Sheet Thickness: 40 mil, 0.040 inch minimum total thickness.
2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
3. Manufacturers:
  - a. R Mer Seal Underlayment.

F. Barrier Boards:

1. Georgia-Pacific Corp. 1/4 inch minimum Dens-Deck protective barrier board with a Class A fire rating over deck surfaces.

G. Bearing Plates:

1. Galvanized steel bearing plates 3 inches by 5 inches by 16 gauge, minimum.
2. Pre-punch with a hole pattern matching that of the panel anchor clips. Slotted holes are acceptable.

H. R-Mer SS Sheet Stock: High gloss, factory coated aluminum, 22 ga.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Do not begin installation of preformed metal roof panels until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### **3.02 PREPARATION**

- A. Broom clean wood sheathing prior to installation of roofing system.
- B. Coordinate roofing work with provisions for roof drainage, flashing, trim, penetrations, and other adjoining work to assure that the completed roof will be free of leaks.
- C. Remove protective film from surface of roof panels immediately prior to installation. Strip film carefully, to avoid damage to prefinished surfaces.
- D. Separate dissimilar metals by applying a bituminous coating, self-adhering rubberized asphalt sheet, or other permanent method approved by roof panel manufacturer.
- E. Where metal will be in contact with wood or other absorbent material subject to wetting, seal joints with sealing compound and apply one coat of heavy-bodied bituminous paint.

#### **3.03 INSTALLATION**

- A. Overall: Install roofing system in accordance with approved shop drawings and panel manufacturer's instructions and recommendations, as applicable to specific project conditions. Anchor all components of roofing system securely in place while allowing for thermal and structural movement.
  1. Install roofing system with concealed clips and fasteners, except as otherwise recommended by manufacturer for specific circumstances.
  2. Minimize field cutting of panels. Where field cutting is absolutely required, use methods that will not distort panel profiles. Use of torches for field cutting is absolutely prohibited.
- B. Accessories: Install all components required for a complete roofing assembly, including flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, equipment curbs, rib closures, ridge closures, and similar roof accessory items.
- C. Roof Panels: Install panels in strict accordance with manufacturer's instructions, minimizing transverse joints except at junction with penetrations.
  1. Form weathertight standing seams incorporating concealed clips, using an automatic mechanical seaming device approved by the panel manufacturer.
  2. Provide sealant tape or other approved joint sealer at lapped panel joints.
- D. Insulation: Install insulation between roof covering and supporting members to present a neat appearance. Fold, staple, and tape seams unless otherwise approved by Architect.

**3.04 CLEANING**

- A. Clean exposed sheet metal work at completion of installation. Remove grease and oil films, excess joint sealer, handling marks, and debris from installation, leaving the work clean and unmarked, free from dents, creases, waves, scratch marks, or other damage to the finish.

**3.05 PROTECTION**

- A. Do not permit storage of materials or roof traffic on installed roof panels. Provide temporary walkways or planks as necessary to avoid damage to completed work. Protect roofing until completion of project.
- B. Touch-up, repair, or replace damaged roof panels or accessories before Date of Substantial Completion.

**END OF SECTION 07 41 13**

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## SECTION 07 62 00 - SHEET METAL FLASHING AND TRIM

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Fabricated sheet metal items, including flashings, counterflashings, gutters, downspouts, sheet metal roofing, and other items indicated in Schedule.

#### 1.02 RELATED REQUIREMENTS

- A. Section 07 71 23 - Manufactured Gutters and Downspouts.

#### 1.03 REFERENCE STANDARDS

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- D. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2023.
- E. CDA A4050 - Copper in Architecture - Handbook; current edition.
- F. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

#### 1.05 QUALITY ASSURANCE

- A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials that could cause discoloration or staining.

### PART 2 PRODUCTS

#### 2.01 SHEET MATERIALS

- A. Pre-Finished Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24-gauge, 0.0239-inch thick base metal, shop pre-coated with PVDF coating.
  - 1. Polyvinylidene Fluoride (PVDF) Coating: Superior performing organic powder coating, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
  - 2. Color: As selected by Architect from manufacturer's standard colors.
- B. Pre-Finished Aluminum: ASTM B209 (ASTM B209M); 20 gage, (0.032 inch) thick; plain finish shop pre-coated with fluoropolymer coating.
  - 1. Fluoropolymer Coating: High performance organic powder coating, AAMA 2604; multiple coat, thermally cured fluoropolymer finish system.
  - 2. Color: As selected by Architect from manufacturer's full colors.
- C. Stainless Steel: ASTM A666, Type 304 alloy, soft temper, 28 gauge, 0.0156 inch thick; smooth No. 4 - Brushed finish.



**2.02 FABRICATION**

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Form pieces in longest possible lengths.
- C. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- D. Form material with flat lock seams, except where otherwise indicated; at moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- E. Fabricate corners from one piece with minimum 18-inch long legs; seam for rigidity, seal with sealant.
- F. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges.
- G. Reglets and Coping Flashings
  - 1. Prefinished sheet metal as detailed and in accordance with SMACNA Architectural Sheet Metal Manual details. Provide slotted fixing holes and hot dipped galvanized steel/plastic washer fasteners.
- H. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- I. Exposed edges:
  - 1. Clip or fold exposed edges of flashing to form rounded edges.
  - 2. File exposed metal edges, ends, corners, folds, or laps to remove sharp edges and ensure rounded edges.
  - 3. Apply sealant coverage to match metal finishes over clipped and filed metal edges, ends, corners, folds or laps.
  - 4. Adjust metal hems, seams, edges and other aspects to minimize projections.

**2.03 ACCESSORIES**

- A. All accessory materials required by the manufacturer for a warrantable installation of the installed products in a manner that meets the Performance and Design Criteria.
- B. Fasteners: Galvanized steel, with soft neoprene washers.
- C. Slip Sheet: Rosin-sized sheathing paper.
- D. Primer Type: Zinc chromate.
- E. Protective Backing Paint: Zinc molybdate alkyd.
- F. Sealants: As specified in Section 07 92 00
- G. Reglets: Surface-mounted type, galvanized steel; face and ends covered with plastic tape.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

**3.02 PREPARATION**

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels, and seal top of reglets with sealant.
- C. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

**3.03 INSTALLATION**

- A. Insert flashings into reglets to form tight fit; secure in place with lead wedges; seal flashings into reglets with sealant.
- B. Secure flashings in place using concealed fasteners, and use exposed fasteners only where permitted..

- C. Apply plastic cement compound between metal flashings and felt flashings.
- D. Fit flashings tight in place; make corners square, surfaces true and straight in planes, and lines accurate to profiles.
- E. Cross Cavity Wall Flashings
  - 1. Fit flashings together so that one end of each section is free to move in the joint.
  - 2. Provide folded end dams when flashings terminate. Caulk end dam to flashing and adjacent material to make watertight.
  - 3. Provide crickets where required to divert moisture to the exterior face of cladding assemblies.
- F. Solder metal joints for full metal surface contact, and after soldering wash metal clean with neutralizing solution and rinse with water.

**3.04 PROTECTION**

- A. Protect installed work as required by the manufacturer to maintain product performance, design criteria and warranty.

**3.05 FIELD QUALITY CONTROL**

- A. See Section 01 40 00 - Quality Requirements for field inspection requirements.
- B. Inspection will involve surveillance of work during installation to ascertain compliance with specified requirements.

**END OF SECTION 07 62 00**

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**SECTION 07 71 23 - MANUFACTURED GUTTERS AND DOWNSPOUTS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Pre-finished aluminum gutters and downspouts.

**1.02 REFERENCE STANDARDS**

- A. AAMA 2604 - Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.
- B. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Comply with applicable code for size and method of rain water discharge.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on prefabricated components.
- C. Shop Drawings: Indicate locations, configurations, jointing methods, fastening methods, locations, and installation details.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.
- B. Prevent contact with materials that could cause discoloration, staining, or damage.

**PART 2 PRODUCTS****2.01 MATERIALS**

- A. Pre-Finished Aluminum Sheet: ASTM B209/B209M, \_\_\_ alloy, \_\_\_ temper; 0.032 inch thick.
  - 1. Finish: Plain, shop pre-coated with PVDF (polyvinylidene fluoride) coating.
  - 2. Color: as selected from manufacturer's full range.

**2.02 COMPONENTS**

- A. Gutters: SMACNA square style profile.
- B. Downspouts: SMACNA Square profile.
- C. Anchors and Supports: Profiled to suit gutters and downspouts.
  - 1. Gutter Supports: Brackets.
  - 2. Downspout Supports: Brackets.
- D. Fasteners: Same material and finish as gutters and downspouts , with soft neoprene washers.

**2.03 FINISHES**

- A. Fluoropolymer Coating: High Performance Organic Finish, AAMA 2604, multiple coat, thermally cured fluoropolymer finish system; color as indicated.

**2.04 FINISHES**

- A. Fluoropolymer Coating: High Performance Organic Finish, AAMA 2604; multiple coat, thermally cured fluoropolymer finish system; color as selected from manufacturer's standard colors.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify existing conditions before starting work.

- B. Verify that surfaces are ready to receive work.

**3.02 PREPARATION**

- A. Paint concealed sheet metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

**3.03 INSTALLATION**

- A. Install gutters, downspouts, and accessories in accordance with manufacturer's instructions.
- B. Sheet Metal: Join lengths with formed seams soldered watertight. Flash and seal gutters to downspouts and accessories.
- C. Slope gutters 1/16 inch per foot .
- D. Solder metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water.
- E. Connect downspouts to storm sewer system. Seal connection watertight.

**END OF SECTION 07 71 23**

## SECTION 07 84 00 - FIRESTOPPING

### PART 1 GENERAL

#### 1.01 SUMMARY

- A. Furnish and install tested and listed firestopping systems, combination of materials, or devices to form an effective barrier against the spread of smoke and gases, and maintain the integrity of fire resistance rated walls, partitions, floors, and ceiling-floor assemblies, including through-penetrations and construction joints and gaps.
  - 1. Through-penetrations include the annular space around pipes, tubes, conduit, wires, cables, and vents.
  - 2. Construction joints include those used to accommodate expansion, contraction, wind, or seismic movement; firestopping material shall not interfere with required movement of the joint.
- B. Gaps requiring firestopping include gaps between top of fire-rated walls and the roof or floor deck above and the intersection of shaft assemblies and adjoining fire resistance rated assemblies.

#### 1.02 REFERENCE STANDARDS

- A. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2022.
- B. ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems; 2013a (Reapproved 2017).
- C. ASTM E1966 - Standard Test Method for Fire-Resistive Joint Systems; 2015 (Reapproved 2019).
- D. ASTM E2174 - Standard Practice for On-Site Inspection of Installed Firestop Systems; 2020a.
- E. ASTM E2393 - Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers; 2020a.
- F. ASTM E2307 - Standard Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multi-story Test Apparatus; 2023b.
- G. ITS (DIR) - Directory of Listed Products; Current Edition.
- H. FM (AG) - FM Approval Guide; current edition.
- I. SCAQMD 1168 - Adhesive and Sealant Applications; 1989, with Amendment (2022).
- J. UL 1479 - Standard for Fire Tests of Penetration Firestops; Current Edition, Including All Revisions.
- K. UL (DIR) - Online Certifications Directory; Current Edition.
- L. UL (FRD) - Fire Resistance Directory; Current Edition.

#### 1.03 SUBMITTALS

- A. Schedule of Firestopping: List each type of penetration, fire rating of the penetrated assembly, and firestopping test or design number.
- B. Product Data: Provide data on product characteristics, performance ratings, and limitations.
- C. Certificate from authority having jurisdiction indicating approval of materials used.

#### 1.04 QUALITY ASSURANCE

- A. Fire Testing: Provide firestopping assemblies or designs that provide the scheduled fire ratings when tested in accordance with methods indicated.

#### 1.05 MOCK-UP

- A. Install one firestopping assembly representative of each fire rating design required on project.
  - 1. Where one design may be used for different penetrating items or in different wall constructions, install one assembly for each different combination.

- B. Obtain approval of authorities having jurisdiction (AHJ) before proceeding.

#### **1.06 FIELD CONDITIONS**

- A. Comply with firestopping manufacturer's recommendations for temperature and conditions during and after installation; maintain minimum temperature before, during, and for three days after installation of materials.
- B. Provide ventilation in areas where solvent-cured materials are being installed.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Firestopping Manufacturers:
  - 1. 3M Fire Protection Products: [www.3m.com/firestop](http://www.3m.com/firestop).
  - 2. A/D Fire Protection Systems Inc: [www.adfire.com](http://www.adfire.com).
  - 3. Hilti, Inc; \_\_\_\_: [www.us.hilti.com/#sle](http://www.us.hilti.com/#sle).
  - 4. Specified Technologies Inc: [www.stifirestop.com/#sle](http://www.stifirestop.com/#sle).

#### **2.02 MATERIALS**

- A. Firestopping Materials: Any materials meeting requirements.
- B. Volatile Organic Compound (VOC) Content: Provide products having VOC content lower than that required by SCAQMD 1168.
- C. Primers, Sleeves, Forms, Insulation, Packing, Stuffing, and Accessories: Provide type of materials as required for tested firestopping assembly.
- D. Fire Ratings: Refer to drawings for required systems and ratings.
- E. Fire Hazard Classification:
  - 1. Material shall have flame spread of 25 or less, and smoke developed rating of 50 or less, when tested in accordance with ASTM E84 or UL 723.

#### **2.03 FIRESTOPPING SYSTEMS**

- A. Firestopping:
  - 1. Fire Ratings: Use system that is listed by FM (AG), ITS (DIR), or UL (FRD) and tested in accordance with ASTM E814, ASTM E119, or UL 1479 with F Rating equal to fire rating of penetrated assembly and minimum T Rating Equal to F Rating and in compliance with other specified requirements.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify openings are ready to receive the work of this section.

#### **3.02 PREPARATION**

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other materials that could adversely affect bond of firestopping material.
- B. Remove incompatible materials that could adversely affect bond.
- C. Install backing materials to prevent liquid material from leakage.

#### **3.03 INSTALLATION**

- A. Install materials in manner described in fire test report and in accordance with manufacturer's instructions, completely closing openings.
- B. Do not cover installed firestopping until inspected by authorities having jurisdiction.
- C. Install labeling required by code.
- D. Insulated Pipes and Ducts: Thermal insulation shall be cut and removed where pipes or ducts pass through firestopping, unless insulation meets requirements specified for firestopping. Replace thermal insulation with material having equal thermal insulating and firestopping characteristics.

**3.04 FIELD QUALITY CONTROL**

- A. Repair or replace penetration firestopping and joints at locations where inspection results indicate firestopping or joints do not meet specified requirements.

**3.05 CLEANING**

- A. Clean adjacent surfaces of firestopping materials.

**3.06 PROTECTION**

- A. Protect adjacent surfaces from damage by material installation.

**END OF SECTION 07 84 00**



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## SECTION 07 92 00 - JOINT SEALANTS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.
- D. Owner-provided field quality control.

#### 1.02 RELATED REQUIREMENTS

- A. Section 09 21 16 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.
- B. Section 09 30 00 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit manufacturer's technical datasheets for each product to be used; include the following:
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 4. Substrates the product should not be used on.
  - 5. Substrates for which use of primer is required.
  - 6. Substrates for which laboratory adhesion and/or compatibility testing is required.
  - 7. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
  - 8. Sample product warranty.
  - 9. Certification by manufacturer indicating that product complies with specification requirements.
- C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
- D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.
- E. Samples for Verification: Where custom sealant color is specified, obtain directions from Architect and submit at least two physical samples for verification of color of each required sealant.
- F. Preconstruction Laboratory Test Reports: Submit at least four weeks prior to start of installation.
- G. Installation Plan: Submit at least four weeks prior to start of installation.
- H. Preinstallation Field Adhesion Test Plan: Submit at least two weeks prior to start of installation.
- I. Field Quality Control Plan: Submit at least two weeks prior to start of installation.
- J. Preinstallation Field Adhesion Test Reports: Submit filled out Preinstallation Field Adhesion Test Reports log within 10 days after completion of tests; include bagged test samples and photographic records.
- K. Installation Log: Submit filled-out log for each length or instance of sealant installed.
- L. Field Quality Control Log: Submit filled-out log for each length or instance of sealant installed, within 10 days after completion of inspections/tests; include bagged test samples and photographic records, if any.

#### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section and with at least five years of documented experience.
- C. Preconstruction Laboratory Testing: Arrange for sealant manufacturer(s) to test each combination of sealant, substrate, backing, and accessories.
  - 1. Adhesion Testing: In accordance with ASTM C794.
  - 2. Compatibility Testing: In accordance with ASTM C1087.
  - 3. Stain Testing: In accordance with ASTM C1248; required only for stone substrates.
  - 4. Allow sufficient time for testing to avoid delaying the work.
  - 5. Deliver sufficient samples to manufacturer for testing.
  - 6. Report manufacturer's recommended corrective measures, if any, including primers or techniques not indicated in product data submittals.
- D. Installation Plan: Include schedule of sealed joints, including the following:
  - 1. Joint width indicated in Contract Documents.
  - 2. Joint depth indicated in Contract Documents; to face of backing material at centerline of joint.
  - 3. Method to be used to protect adjacent surfaces from sealant droppings and smears, with acknowledgment that some surfaces cannot be cleaned to like-new condition and therefore prevention is imperative.
  - 4. Approximate date of installation, for evaluation of thermal movement influence.
  - 5. Installation Log Form: Include the following data fields, with known information filled out.
    - a. Location on project.
    - b. Substrates.
    - c. Sealant used.
    - d. Stated movement capability of sealant.
    - e. Primer to be used, or indicate no primer is used.
    - f. Size and actual backing material used.
    - g. Date of installation.
    - h. Name of installer.
    - i. Actual joint width; provide space to indicate maximum and minimum width.
    - j. Actual joint depth to face of backing material at centerline of joint.
    - k. Air temperature.
- E. Preinstallation Field Adhesion Test Plan: Include destructive field adhesion testing of one sample of each combination of sealant type and substrate, except interior acrylic latex sealants, and include the following for each tested sample.
  - 1. Identification of testing agency.
  - 2. Name(s) of sealant manufacturer's field representatives who will be observing.
  - 3. Preinstallation Field Adhesion Test Log Form: Include the following data fields, with known information filled out.
    - a. Substrate; if more than one type of substrate is involved in a single joint, provide two entries on form, for testing each sealant substrate side separately.
    - b. Test date.
    - c. Location on project.
    - d. Sealant used.
    - e. Test method used.
    - f. Date of test.
    - g. Copy of test method documents.
    - h. Age of sealant upon date of testing.
    - i. Test results, modeled after the sample form in the test method document.

- j. Indicate use of photographic record of test.
- F. Owner will employ an independent testing agency to perform the field quality control inspection and testing as referenced in PART 3 of this section and as follows, to prepare and submit the field quality control plan and log, and to provide recommendations of remedies in the case of failure.
  1. Contractor shall cooperate with testing agency and repair failures discovered and destructive test location damage.
- G. Field Quality Control Plan:
  1. Visual inspection of entire length of sealant joints.
  2. Destructive field adhesion testing of sealant joints, except interior acrylic latex sealant.
    - a. For each different sealant and substrate combination, allow for one test every 100 feet in the first 1,000 linear feet, and one test per 1,000 linear feet thereafter, or once per floor on each elevation.
    - b. If any failures occur in the first 1,000 linear feet, continue testing at frequency of one test per 500 linear feet at no extra cost to Owner.
  3. Field Quality Control Log Form: Show same data fields as on Preinstallation Field Adhesion Test Log, with known information filled out and lines for multiple tests per sealant/substrate combinations; include visual inspection and specified field testing; allow for possibility that more tests than minimum specified may be necessary.
- H. Field Adhesion Test Procedures:
  1. Allow sealants to fully cure as recommended by manufacturer before testing.
  2. Have a copy of the test method document available during tests.
  3. Take photographs or make video records of each test, with joint identification provided in the photos/videos; for example, provide small erasable whiteboard positioned next to joint.
  4. Record the type of failure that occurred, other information required by test method, and the information required on the Field Quality Control Log.
  5. When performing destructive tests, also inspect the opened joint for proper installation characteristics recommended by manufacturer, and report any deficiencies.
  6. Deliver the samples removed during destructive tests in separate sealed plastic bags, identified with project, location, test date, and test results, to Owner.
  7. If any combination of sealant type and substrate does not show evidence of minimum adhesion or shows cohesion failure before minimum adhesion, report results to Architect.
- I. Nondestructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Nondestructive Spot Method.
  1. Record results on Field Quality Control Log.
  2. Repair failed portions of joints.
- J. Destructive Field Adhesion Test: Test for adhesion in accordance with ASTM C1521, using Destructive Tail Procedure.
  1. Sample: At least 18 inches long.
  2. Minimum Elongation Without Adhesive Failure: Consider the tail at rest, not under any elongation stress; multiply the stated movement capability of the sealant in percent by two; then multiply 1 inch by that percentage; if adhesion failure occurs before the 1-inch mark is that distance from the substrate, the test has failed.
  3. If either adhesive or cohesive failure occurs before minimum elongation, take necessary measures to correct conditions and retest; record each modification to products or installation procedures.
  4. Record results on Field Quality Control Log.
  5. Repair failed portions of joints.

- K. Field Adhesion Tests of Joints: Test for adhesion using most appropriate method in accordance with ASTM C1521, or another applicable method as recommended by manufacturer.

#### **1.05 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.
- D. Twenty (20) year weatherseal and structural warranty where DowSil Specified as Basis of Design.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Nonsag Sealants:
  - 1. ADCO; BP-300.
  - 2. Dow Chemical Company; Dowsil 790, 756, 795: [consumer.dow.com/en-us/industry/ind-building-construction.html/#sle](http://consumer.dow.com/en-us/industry/ind-building-construction.html/#sle).
  - 3. Pecora Corporation; AC-20, AC20-FTR, AIS-919: [www.pecora.com/#sle](http://www.pecora.com/#sle).
  - 4. Soudal, Inc.; LTX-1, Acoustical.
  - 5. Sika Corporation: [www.usa-sika.com/#sle](http://www.usa-sika.com/#sle).
  - 6. M-1, Durasil or DuraLink 35 by Chemlink: [www.chemlink.com](http://www.chemlink.com).

#### **2.02 JOINT SEALANT APPLICATIONS**

- A. Scope:
  - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
    - a. Wall expansion and control joints.
    - b. Joints between door, window, and other frames and adjacent construction.
    - c. Joints between different exposed materials.
    - d. Openings below ledge angles in masonry.
    - e. Other joints indicated below.
  - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
    - c. Other joints indicated below.
  - 3. Do Not Seal:
    - a. Intentional weep holes in masonry.
    - b. Joints indicated to be covered with expansion joint cover assemblies.
    - c. Joints where sealant is specified to be furnished and installed by manufacturer of product to be sealed.
    - d. Joints where sealant installation is specified in other sections.
    - e. Joints between suspended ceilings and walls.
- B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
  - 1. Lap Joints in Sheet Metal Fabrications: Butyl rubber, non-curing.
  - 2. Lap Joints between Manufactured Metal Panels: Butyl rubber, non-curing.
  - 3. Control and Expansion Joints in Concrete Paving: Self-leveling polyurethane "traffic-grade" sealant.
- C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.

1. Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant.
  2. Wall and Ceiling Joints in Wet Areas: Non-sag polyurethane sealant for continuous liquid immersion.
  3. Floor Joints in Wet Areas: Non-sag polyurethane "traffic-grade" sealant suitable for continuous liquid immersion.
  4. Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; white.
  5. In Sound-Rated Assemblies: Acrylic emulsion latex sealant.
  6. Narrow Control Joints in Interior Concrete Slabs: Self-leveling polyurethane sealant.
  7. Other Floor Joints: Non-sag polyurethane "traffic-grade" sealant.
- D. Interior Wet Areas: restrooms; fixtures in wet areas include plumbing fixtures and other similar items.
- E. Sound-Rated Assemblies: Walls and ceilings identified as STC-rated, sound-rated, or acoustical.

### **2.03 JOINT SEALANTS - GENERAL**

- A. Colors: As selected by Architect.

### **2.04 NONSAG JOINT SEALANTS**

- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS. Uses M and A; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: 50, minimum.
  2. Nonstaining to Porous Stone: Nonstaining to light-colored natural stone when tested in accordance with ASTM C1248.
  3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
  4. Hardness Range: 15 to 35, Shore A, when tested in accordance with ASTM C661.
  5. Color: To be selected by Architect from manufacturer's standard range.
  6. Cure Type: Single-component, neutral moisture curing.
  7. Service Temperature Range: Minus 20 to 180 degrees F.
- B. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
1. Color: Clear.
- C. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
1. Movement Capability: Plus and minus 35 percent, minimum.
  2. Hardness Range: 20 to 35, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's standard range.
- D. Polyurethane Sealant for Continuous Water Immersion: ASTM C920, Grade NS, Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion; suitable for traffic exposure when recessed below traffic surface .
1. Movement Capability: Plus and minus 35 percent, minimum.
  2. Hardness Range: 20 to 35, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's standard range.
- E. Non-Sag "Traffic-Grade" Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; explicitly approved by manufacturer for continuous water immersion and traffic without the necessity to recess sealant below traffic surface.
1. Movement Capability: Plus and minus 25 percent, minimum.
  2. Hardness Range: 20 to 30, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's standard range.

- F. Non-Curing Butyl Sealant: Solvent-based; ASTM C1311; single component, non-sag, non-skinning, non-hardening, non-bleeding; vapor-impermeable; intended for fully concealed applications.

## **2.05 SELF-LEVELING JOINT SEALANTS**

- A. Self-Leveling Polyurethane Sealant: ASTM C920, Grade P, Uses M and A; single or multi-component; explicitly approved by manufacturer for traffic exposure; not expected to withstand continuous water immersion .
  1. Movement Capability: Plus and minus 25 percent, minimum.
  2. Hardness Range: 35 to 55, Shore A, when tested in accordance with ASTM C661.
  3. Color: To be selected by Architect from manufacturer's standard range.
  4. Service Temperature Range: Minus 40 to 180 degrees F.
- B. Rigid Self-Leveling Polyurethane Joint Filler: Two part, low viscosity, fast setting; intended for cracks and control joints not subject to significant movement.
  1. Hardness Range: Greater than 100, Shore A, and 50 to 80, Shore D, when tested in accordance with ASTM C661.

## **2.06 ACCESSORIES**

- A. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- B. Masking Tape: Self-adhesive, nonabsorbent, nonstaining, removable without adhesive residue, and compatible with surfaces adjacent to joints and sealants.
- C. Joint Cleaner: Noncorrosive and nonstaining type, type recommended by sealant manufacturer; compatible with joint forming materials.
- D. Primers: Type recommended by sealant manufacturer to suit application; nonstaining.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.
- D. Preinstallation Adhesion Testing: Install a sample for each test location indicated in the test plan.
  1. Test each sample as specified in PART 1 under QUALITY ASSURANCE article.
  2. Notify Architect of date and time that tests will be performed, at least seven days in advance.
  3. Arrange for sealant manufacturer's technical representative to be present during tests.
  4. Record each test on Preinstallation Adhesion Test Log as indicated.
  5. If any sample fails, review products and installation procedures, consult manufacturer, or take other measures that are necessary to ensure adhesion; retest in a different location; if unable to obtain satisfactory adhesion, report to Architect.
  6. After completion of tests, remove remaining sample material and prepare joints for new sealant installation.

### **3.02 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

- E. Concrete Floor Joints That Will Be Exposed in Completed Work: Test joint filler in an inconspicuous area to verify that it does not stain or discolor slab.

### **3.03 INSTALLATION**

- A. Install this work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Provide joint sealant installations complying with ASTM C1193.
- C. Install acoustical sealant application work in accordance with ASTM C919.
- D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.
- E. Install bond breaker backing tape where backer rod cannot be used.
- F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- H. Nonsag Sealants: Dry tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- I. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

### **3.04 FIELD QUALITY CONTROL**

- A. See Section 01 40 00 - Quality Requirements for additional requirements.
- B. Owner will employ an independent testing agency to perform field quality control inspection and testing as specified in PART 1 under QUALITY ASSURANCE article.
- C. Non-Destructive Adhesion Testing: If there are any failures in first 100 linear feet, notify Architect immediately.
- D. Destructive Adhesion Testing: If there are any failures in first 1,000 linear feet, notify Architect immediately.
- E. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.
- F. Repair destructive test location damage immediately after evaluation and recording of results.

### **3.05 POST-OCCUPANCY**

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width, i.e., at low temperature in thermal cycle. Report failures immediately and repair them.

**END OF SECTION 07 92 00**



**SECTION 08 11 13 - HOLLOW METAL DOORS AND FRAMES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Non-fire-rated hollow metal doors and frames.
- B. Hollow metal frames for wood doors.
- C. Fire-rated hollow metal doors and frames.
- D. Thermally insulated hollow metal doors with frames.
- E. Bullet-resistant hollow metal frames.
- F. Hollow metal borrowed lites glazing frames.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 71 00 - Door Hardware.
- B. Section 08 80 00 - Glazing: Glass for doors and borrowed lites.
- C. Section 09 91 13 - Exterior Painting: Field painting.
- D. Section 09 91 23 - Interior Painting: Field painting.

**1.03 SUBMITTALS**

- A. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes.
- B. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
- C. Samples: Submit two samples of metal, 2 by 2 inches in size, showing factory finishes, colors, and surface texture.
- D. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.
- E. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.
- F. Manufacturer's Qualification Statement.
- G. Installer's Qualification Statement.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than three years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- C. Maintain at project site copies of reference standards relating to installation of products specified.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Hollow Metal Doors and Frames:
  - 1. Ceco Door, an Assa Abloy Group company: [www.assaabloydss.com](http://www.assaabloydss.com).
  - 2. Fleming Door Products, an Assa Abloy Group company: [www.assaabloydss.com/#sle](http://www.assaabloydss.com/#sle).
  - 3. Republic Doors, an Allegion brand: [www.republicdoor.com/#sle](http://www.republicdoor.com/#sle).
  - 4. Steelcraft, an Allegion brand: [www.allegion.com/#sle](http://www.allegion.com/#sle).

## 2.02 PERFORMANCE REQUIREMENTS

- A. Requirements for Hollow Metal Doors and Frames:
1. Steel Sheet: Comply with one or more of the following requirements; galvanized steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
  2. Accessibility: Comply with ICC A117.1 and ADA Standards.
  3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
  4. Door Edge Profile: Manufacturers standard for application indicated.
  5. Typical Door Face Sheets: Flush.
  6. Glazed Lights: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings. Style: Security.
  7. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
  8. Zinc Coating for Typical Interior and/or Exterior Locations: Provide metal components zinc-coated (galvanized) and/or zinc-iron alloy-coated (galvanized) by the hot-dip process in accordance with ASTM A653/A653M, with manufacturer's standard coating thickness, unless noted otherwise for specific hollow metal doors and frames.
- B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

## 2.03 HOLLOW METAL DOORS

- A. Door Finish: Factory finished.
- B. Exterior Doors: Thermally insulated.
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
    - a. Level 3 - Extra Heavy-duty.
    - b. Physical Performance Level A, 1,000,000 cycles; in accordance with ANSI/SDI A250.4.
    - c. Model 2 - Seamless.
    - d. Door Face Metal Thickness: 18 gauge, 0.042 inch, minimum.
    - e. Zinc Coating: A60/ZF180 galvanized coating; ASTM A653/A653M.
  2. Core Material: Polyurethane, 1.8 lbs/cu ft minimum density.
    - a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
  3. Door Thermal Resistance: R-Value of 8.7, minimum, for installed thickness of polyurethane
  4. Door Thickness: 1-3/4 inches, nominal.
  5. Weatherstripping: Refer to Section 08 71 00.
- C. Interior Doors, Non-Fire Rated:
1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
    - a. Level 3 - Extra Heavy-duty.
    - b. Physical Performance Level A 1 000 000 cycles; in accordance with ANSI/SDI A250.4.
    - c. Model 1 - Full Flush.

- d. Door Face Metal Thickness: 18 gauge, 0.042 inch, minimum.
- 2. Door Core Material: Manufacturers standard core material/construction and in compliance with requirements.
- 3. Door Thickness: 1-3/4 inches, nominal.
- D. Fire-Rated Doors:
  - 1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
    - a. Level 3 - Extra Heavy-duty.
    - b. Physical Performance Level A 1 000 000 cycles; in accordance with ANSI/SDI A250.4.
    - c. Model 1 - Full Flush.
    - d. Door Face Metal Thickness: 18 gauge, 0.042 inch, minimum.
  - 2. Fire Rating: As indicated on Door Schedule, tested in accordance with UL 10C and NFPA 252 ("positive pressure fire tests").
  - 3. Provide units listed and labeled by UL (DIR) or ITS (DIR).
    - a. Attach fire rating label to each fire rated unit.
  - 4. Smoke and Draft Control Doors: Self-closing or automatic closing doors in accordance with NFPA 80 and NFPA 105, with fire-resistance-rated wall construction rated the same or greater than the fire-rated doors, and the following;
    - a. Maximum Air Leakage: 3.0 cfm/sq ft of door opening at 0.10 inch w.g. pressure, when tested in accordance with UL 1784 at both ambient and elevated temperatures.
    - b. Gasketing: Provide gasketing or edge sealing as necessary to achieve leakage limit.
    - c. Label: Include the "S" label on fire-rating label of door.
  - 5. Door Core Material: Manufacturers standard core material/construction in compliance with requirements.

#### **2.04 HOLLOW METAL FRAMES**

- A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.
- B. Frame Finish: Factory primed and field finished.
- C. Exterior Door Frames: Full profile/continuously welded type.
  - 1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A60/ZF180 coating.
  - 2. Frame Metal Thickness: 14 gage, 0.067 inch, minimum.
  - 3. Frame Finish: Factory primed and field finished.
  - 4. Weatherstripping: Separate, see Section 08 71 00.
- D. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
  - 1. Terminated Stops: Provide at interior doors; closed end stop terminated 6 inch, maximum, above floor at 45 degree angle.
  - 2. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
  - 3. Frame Finish: Factory primed and field finished.
- E. Door Frames, Fire-Rated: Full profile/continuously welded type.
  - 1. Fire Rating: Same as door, labeled.
  - 2. Terminated Stops: Provide at interior doors; closed end stop terminated 6 inch, maximum, above floor at 45 degree angle.
  - 3. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
  - 4. Frame Finish: Factory primed and field finished.
- F. Bullet-Resistant Door Frames: Comply with UL 752, with same level of bullet resistance as door; face welded construction, ground smooth, fully prepared and reinforced for hardware installation.

- G. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
- H. Borrowed Lites Glazing Frames: Construction and face dimensions to match door frames, and as indicated on drawings.
- I. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
- J. Frames in Masonry Walls: Size to suit masonry coursing with head member 4 inches high to fill opening without cutting masonry units.
- K. Frames Wider than 48 inches: Reinforce with steel channel fitted tightly into frame head, flush with top.

## **2.05 FINISHES**

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.
- B. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15 mil, 0.015 inch dry film thickness (DFT) per coat; provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

## **2.06 ACCESSORIES**

- A. Door Window Frames: Door window frames with glazing securely fastened within door opening.
  - 1. Size: As indicated on drawings.
  - 2. Frame Material: 18 gauge, 0.0478 inch, galvanized steel.
- B. Glazing: As specified in Section 08 80 00.
- C. Removable Stops: Formed sheet steel, mitered or butted corners; prepared for countersink style tamper proof screws.
- D. Astragals and Edges for Double Doors: Pairs of door astragals, and door edge sealing and protection devices.
  - 1. Provide surface mounted astragal to cover or fill space for full door height between pair of doors or door and adjacent jamb.
  - 2. Astragal Type: Overlapping, flat-shaped, with coordinator for proper door closing sequence, and with sealing gasket.
  - 3. Material: Galvanized steel.
  - 4. Provide non-corroding fasteners at exterior locations.
- E. Mechanical Fasteners for Concealed Metal-to-Metal Connections: Self-drilling, self-tapping, steel with electroplated zinc finish.
- F. Grout for Frames: Mortar grout complying with ASTM C476 with maximum slump of 4 inches as measured in accordance with ASTM C143/C143M for hand troweling in place; plaster grout and thinner pumpable grout are prohibited.
- G. Silencers: Resilient rubber, fitted into drilled hole; provide three on strike side of single door, three on center mullion of pairs, and two on head of pairs without center mullions.
- H. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

### **3.02 PREPARATION**

- A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation.

### **3.03 INSTALLATION**

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Install fire rated units in accordance with NFPA 80.
- C. Coordinate frame anchor placement with wall construction.
- D. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- E. Install door hardware as specified in Section 08 71 00.
- F. Coordinate installation of electrical connections to electrical hardware items.
- G. Touch up damaged factory finishes.

### **3.04 TOLERANCES**

- A. Clearances Between Door and Frame: Comply with related requirements of specified frame standards or custom guidelines indicated in accordance with SDI 117 or NAAMM HMMA 861.
- B. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

### **3.05 ADJUSTING**

- A. Adjust for smooth and balanced door movement.

### **3.06 SCHEDULE**

- A. Refer to Door and Frame Schedule on the drawings.

**END OF SECTION 08 11 13**

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## SECTION 08 14 16 - FLUSH WOOD DOORS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Flush wood doors; flush and flush glazed configuration; non-rated and acoustical.
- B. Bullet Resistant Wood Doors.

#### 1.02 RELATED REQUIREMENTS

- A. Section 08 11 13 - Hollow Metal Doors and Frames.
- B. Section 08 71 00 - Door Hardware.
- C. Section 08 80 00 - Glazing.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics.
- C. Shop Drawings: Show doors and frames, elevations, sizes, types, swings, undercuts, beveling, blocking for hardware, factory machining, factory finishing, cutouts for glazing and other details.
- D. Samples: Submit two samples of door veneer, illustrating wood grain, stain color, and sheen.
- E. Test Reports: Show compliance with specified requirements for the following:
  - 1. Sound-retardant doors and frames; sealed panel tests are not acceptable.
  - 2. Bullet resistant doors and frames.
- F. Manufacturer's Installation Instructions: Indicate special installation instructions.
- G. Specimen warranty.
- H. Warranty, executed in Owner's name.

#### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section, with not less than three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Package, deliver and store doors in accordance with specified quality standard.
- B. Accept doors on site in manufacturer's packaging, and inspect for damage.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic; do not store in damp or wet areas or areas where sunlight might bleach veneer; seal top and bottom edges with tinted sealer if stored more than one week, and break seal on site to permit ventilation.

#### 1.06 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

#### 2.02 DOORS

- A. Doors: See drawings for locations and additional requirements.
  - 1. Quality Standard: Premium Grade, Heavy Duty performance, in accordance with AWI/AWMAC/WI (AWS), AWMAC/WI (NAAWS) or WDMA I.S. 1A.
  - 2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
- B. Interior Doors: 1-3/4 inches thick unless otherwise indicated; flush construction.
  - 1. Provide solid core doors at each location.

2. Sound-Rated Doors: Minimum STC as indicated on drawings, calculated in accordance with ASTM E413, tested in accordance with ASTM E90. Obtain sound rated doors assemblies, including doors, frames, sound control seals, hinges, thresholds, and other items essential for sound control, from single source.
3. Bullet Resistant Doors: UL 752, Level 3.
4. Wood veneer facing with factory transparent finish to match existing doors.

### **2.03 DOOR AND PANEL CORES**

- A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.
- B. Sound-Rated Doors: Equivalent to type, with particleboard core (PC) construction as required to achieve STC rating specified; plies and faces as indicated above.
- C. Bullet Resistant Doors: Equivalent to type, with bonded particleboard core (PC); rating; plies and faces as indicated above.

### **2.04 DOOR FACINGS**

- A. Veneer Facing for Transparent Finish: Walnut, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with book match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
  1. Vertical Edges: Same species as face veneer.

### **2.05 DOOR CONSTRUCTION**

- A. Fabricate doors in accordance with door quality standard specified.
- B. Cores Constructed with stiles and rails:
  1. Provide solid blocks at lock edge for hardware reinforcement.
  2. Provide solid blocking for other throughbolted hardware.
- C. Glazed Openings: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings.
- D. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
- E. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
- F. Provide edge clearances in accordance with the quality standard specified.

### **2.06 FINISHES - WOOD VENEER DOORS**

- A. Finish work in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 5 - Finishing for grade specified and as follows:
  1. Transparent:
    - a. System - 12, Polyurethane, Water-based.
    - b. Stain: As selected by Architect.
    - c. Sheen: Satin.
- B. Factory finish doors in accordance with approved sample.
- C. Seal door top edge with color sealer to match door facing.

### **2.07 ACCESSORIES**

- A. Hollow Metal Door Frames: See Section 08 11 13.
- B. Glazing: See Section 08 80 00.
- C. Glazing Stops: Wood, of same species as door facing, butted corners; prepared for countersink style tamper proof screws.
- D. Door Hardware: See Section 08 71 00.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.



- B. Verify that opening sizes and tolerances are acceptable.
- C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

### **3.02 INSTALLATION**

- A. Install doors in accordance with manufacturer's instructions and specified quality standard.
  - 1. Install fire-rated doors in accordance with NFPA 80 requirements.
- B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
- C. Use machine tools to cut or drill for hardware.
- D. Coordinate installation of doors with installation of frames and hardware.
- E. Coordinate installation of glazing.
- F. Install door louvers plumb and level.

### **3.03 TOLERANCES**

- A. Comply with specified quality standard for fit and clearance tolerances.
- B. Comply with specified quality standard for telegraphing, warp, and squareness.

### **3.04 ADJUSTING**

- A. Adjust doors for smooth and balanced door movement.
- B. Adjust closers for full closure.

**END OF SECTION 08 14 16**

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## SECTION 08 33 26 - OVERHEAD COILING GRILLES

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Overhead coiling metal grilles and operating hardware; manually operated.

#### 1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide general construction component connections and details.
- C. Shop Drawings: Indicate pertinent dimensioning, anchorage methods, hardware locations, and installation details.
- D. Samples: Two grille sections, illustrating shape, color and finish texture.
- E. Manufacturer's Installation Instructions: Indicate installation sequences and procedures, adjustment and alignment procedures.
- F. Maintenance Data: Indicate lubrication requirements and frequency and periodic adjustments required.

#### 1.03 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide lifetime manufacturer warranty for roller shaft counterbalance assembly. Complete forms in Owner's name and register with manufacturer.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Overhead Coiling Grilles:
  - 1. Alumatec Pacific Products; Perforated Shutter.
  - 2. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.02 GRILLES AND COMPONENTS

- A. Grille: Aluminum; perforated panel allowing 60% transparency and airflow, coiling on overhead counterbalanced shaft.
  - 1. Finish: No. 4 - Brushed.
  - 2. Lock Devices: Lock and latch handle on outside.
  - 3. Manual push up operation.
  - 4. Mounting: Surface mounted at inside of pantry.
- B. Guides: Extruded aluminum angles, of profile to retain grille in place with snap-on trim, mounting brackets of same metal.
- C. Hood Enclosure and Trim: Sheet metal; completely covering operating mechanisms; internally reinforced to maintain rigidity and shape.
  - 1. Material: Same metal as grille.
- D. Lock Hardware:
  - 1. Latch Handle: Manufacturer's standard.
- E. Roller Shaft Counterbalance: Steel pipe and helical steel spring system, capable of producing torque sufficient to ensure smooth operation of curtain from any position and capable of holding position at mid-travel; with adjustable spring tension; requiring 25 lb nominal force to operate.

#### 2.03 MATERIALS

- A. Aluminum: ASTM B221 (ASTM B221M).

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that adjacent construction is suitable for door installation.
- B. Verify that electrical services have been installed and are accessible.
- C. Verify that door opening is plumb, header is level, and dimensions are correct.
- D. Notify Architect of any unacceptable conditions or varying dimensions.
- E. Commencement of installation indicates acceptance of substrate and door opening conditions.

### **3.02 INSTALLATION**

- A. Install grille unit assembly in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- E. Install enclosure and perimeter trim.

### **3.03 TOLERANCES**

- A. Maintain dimensional tolerances and alignment with adjacent work.
- B. Maximum Variation From Plumb: 1/16 inch.
- C. Maximum Variation From Level: 1/16 inch.
- D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch per 10 ft straight edge.

### **3.04 ADJUSTING**

- A. Adjust grille, hardware and operating assemblies for smooth and noiseless operation.

### **3.05 CLEANING**

- A. Clean grille and components.
- B. Remove labels and visible markings.

**END OF SECTION 08 33 26**

## SECTION 08 36 00 - FOUR-FOLD BAY DOORS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Four-Fold Metal Doors tested and approved for High Velocity Hurricane Zones, Impacted Rated with Ultimate Design Wind Speed with 3-second gusts at 150mph, provide Florida Product Approval.

#### 1.02 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data for each type of product specified consisting of manufacturer's technical Product Data and installation instructions for each type of door required, including data substantiating that products comply with specified requirements.
- C. Submittal Drawings showing fabrication and installation of Four-Fold metal doors including plans, elevations, sections, details of components, hardware, operating mechanism, and attachments to the other units of Work. Include wiring diagrams.
- D. Reference list including five (5) successful installations of this type of hurricane rated door within the past two (2) years.

#### 1.03 QUALITY ASSURANCE

- A. Doors shall be designed to withstand external or internal horizontal wind loads of 120 pounds minimum per square foot. The maximum allowable deflection shall not exceed 1/120 of the span. Fiber stresses in main members shall be limited to 27,000 pounds per square inch. Steel frames shall be designed in accordance with the AISC "Steel Construction Manual".
- B. Installer Qualifications: Installer must be trained and approved by Four-Fold door manufacturer for both installation and maintenance of the specified type of door. Installer must have successfully completed at least five (5) similar jobs in the past two (2) years.

#### 1.04 DELIVERY, STORAGE, AND HANDLING

- A. Store delivered materials and equipment in dry locations with adequate ventilation, free from dust and water, and so as to permit access for inspection and handling.
- B. Handle materials carefully to prevent damage.

#### 1.05 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. The door manufacturer shall provide a written standard limited warranty for material and workmanship.

### PART 2 PRODUCTS

#### 2.01 BASE BID MANUFACTURER

- A. Four-Fold industrial metal doors manufactured by Door Engineering and Manufacturing. Exterior mounted with interior mouted hardware.
  - 1. Products:
    - a. FF300XT, glazed.
    - b. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.02 MATERIALS

- A. Steel Tube: ASTM A513 and ASTM A500/A500M.
- B. Steel Sheets: Steel sheets of commercial quality, complying with ASTM A1011/A1011M hot-rolled steel sheet.

- C. Hardware: Manufacturer's standard components.
- D. Fasteners: Zinc-coated steel.

### 2.03 FOUR-FOLD DOORS

- A. Construction: Door framing shall be minimum 11-gauge structural steel tube with 14-gauge sheet steel on the exterior and interior faces. Sheeting shall be formed on the vertical edges with no visible welds or caulked sheet edges on the interior or exterior panel faces. All frames and framing members shall be true to dimension and square in all directions, and no door shall be bowed, warped, or out of line, in the vertical or horizontal plane of the door opening by more than 1/8 inch in 20 feet. Exposed welds and welds which interfere with the installation of various parts shall be ground smooth and flush.
- B. Surface Mounted Tube Frame: Supply pre-hung tube frame system constructed of TS6x6x0.25, designed to anchor to masonry wall construction or weld to steel structure. All hinges, track supports and operator supports shall be factory attached.
- C. Factory finish: Operator and operating hardware shall be powdercoated manufacturer's standard gray. Panels, frame and all other hardware shall be finished as follows:
  - 1. All exposed steel shall be finished with manufacturer's standard zinc rich primer and polyurethane top coat, PPG Spectracron or equal. Customer to select from Manufacturer's standard color chart or furnish color to match.
- D. Operating Hardware: Hardware shall include guide tracks and brackets, trolleys, center guides, not less than three pairs of jamb and fold hinges per opening, and all bolts, nuts, fasteners, etc. necessary for complete installation and operation. Jamb hinges shall be dual shear and have two thrust bearings and two needle bearings. Jamb hinges shall be gusseted. Fold hinges shall be dual shear with two thrust bearings. Fold hinges shall be stainless steel. All bearings shall be completely sealed within the hinge barrel and include grease zerks. All hinge pins shall be minimum 3/4" diameter hardened steel. All trolleys shall be equipped two (2) Nylatron rollers.
- E. Hinge Guards: Provide plastic guards at jamb hinges to prevent access through hinge space.
- F. Weatherstripping: Material shall be adjustable and readily replaceable and provide a substantially weather-tight installation. Weatherstripping at center shall be 1/16" cloth inserted neoprene. No exposed fasteners shall be required to attach the center bulb weatherseals. Weatherstripping at sill shall include two 1/16" cloth inserted neoprene sweeps with an aluminum retainer. The retainer shall be attached to the door with adhesive.
- G. Perimeter Weatherstripping: Provide jamb and head weatherstripping of 1/16" cloth-inserted neoprene bulb (or closed cell neoprene).
- H. Vision Panels: Provide 9/16" impact safety glass of the size, shape and location as noted on the drawings.
- I. Hurricane Locking System: Locking bolts shall be completely concealed within the door panel. Locking bolts shall extend into the floor and into the header tube. A limit switch shall disable the operator when the locks are engaged.

### 2.04 OPERATOR

- A. Each Four-Fold door shall be operated by an overhead mounted electro-mechanical drive unit designed for high cycle operation. Operator consists of an electric motor, gear reducer, and rotating drive arm. The door shall be operated with connecting rods attached to the rotating drive arm on the operator and to control arms attached to the jamb door section and to the door lintel. The connecting rods shall be positive drive, keeping the door under firm control at all times. The connecting rods shall be fitted with spherical bearings and control arms shall be equipped with oil impregnated bronze bearings on polished shafts.

- B. Operator shall be instantly reversible, open and close rapidly and start and stop gradually. Operator shall be adjustable to allow door to fully clear the opening. Operator shall automatically lock the door in the closed position. Operator shall be equipped with disengaging mechanism to convert to manual operation.
- C. Electric motor shall be of sufficient size to operate doors under normal operating conditions at no more than 75 percent of rated capacity. The motor shall be wound for three phase 208/260/480 VAC, 60 Hertz operation.
- D. Electric Controls: Controls shall be furnished by the door manufacturer and shall be complete for each door, and built in accordance with the latest NEMA standards. Incoming electrical shall be 208/230VAC 3-phase.
  - 1. Control panel assemblies shall be UL listed as per NFPA70.
  - 2. Controls shall include a programmable logic controller with digital message display. Controller shall include programmable close timers and programmable inputs/outputs
  - 3. Motor starters shall be magnetic reversing, factory wired with overload and under voltage protection, and equipped with mechanical interlocks. All control components shall be enclosed in one enclosure with a wiring diagram placed on the inside of the cover.
  - 4. If incoming voltage is single phase, control panel shall include a variable frequency drive to convert voltage to 3-phase for the motor
  - 5. Enclosures shall be NEMA 4 with disconnect switch.
  - 6. Pushbuttons (interior) for each door shall have one momentary pressure three-button push-button station marked "OPEN", "CLOSE" and "STOP". Push button enclosure shall be NEMA 4.
- E. Limit switches shall be provided to stop the travel of the door in its fully open or fully closed position. Provide cremone bolt limit switch to be used for HVAC or exhaust removal system.
  - 1. Safety edges: Provide 4-wire fail-safe electric safety edges on leading edge of all doors to reverse door upon contact with obstruction.
  - 2. Photo eyes: Provide (1) exterior, jamb mounted, light Curtain type photo eyes, NEMA 4 rated. Photo eye shall cover from floor level to 72" above floor.
  - 3. Presence Sensor: Provide (1) interior, overhead mounted, presence sensor with pre-open and pre-close safety fields. Sensor shall be LZR-Widescan or equal.
  - 4. Timer Activation Loop Detectors (fire station applications): Provide "pulse on exit type" loop detector to activate auto close timer once loop has been activated and cleared, include hand/auto switch to deactivate timer. G.C. to coordinate installation of preformed loop with installer prior to exterior apron being poured.
  - 5. Wiring: Door manufacturer shall supply controls and components only. Electrical contractor shall install controls and furnish and install conduits and wiring for jobsite power and control wiring.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Install in accordance with manufacturer's instructions, and as follows.
- B. Install Four-Fold metal doors in strict accordance with the approved drawings by qualified door erection crews. All door openings shall be completely prepared by the general contractor prior to the installation of the doors. Permanent or temporary electric wiring shall be brought to the door opening before installation is started and shall be completed so as not to delay the inspection test.
- C. Doors shall be set plumb, level, and square, and with all parts properly fastened and mounted. All moving parts shall be tested and adjusted and left in good operating condition.

**3.02 ADJUSTING AND CLEANING**

- A. Inspection of the doors and a complete operating test will be made by the installer in the presence of the general contractor or architect as soon as the erection is complete. Any defects noted shall be corrected. After door approval in the above test, the general contractor must assume the responsibility for any damage or rough handling of the doors during construction until the building is turned over to the owner and final inspection is made.
- B. Clean surfaces and repaint abraded or damaged finished surfaces to match factory-applied finish.

**END OF SECTION 08 36 00**



## SECTION 08 36 13 - SECTIONAL DOORS

### PART 1 GENERAL

#### 1.01 GENERAL

- A. This section is provided as an alternative to the 4-fold doors specified in section 08 36 00. If alternative #2 is selected, replace 4-fold door system with sectional doors as specified herein.

#### 1.02 SECTION INCLUDES

- A. Overhead sectional doors, electrically operated.
- B. Operating hardware and supports.
- C. Electrical controls.

#### 1.03 RELATED REQUIREMENTS

- A. Section 05 50 00 - Metal Fabrications: Steel channel opening frame.
- B. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.
- C. Section 26 05 83 - Wiring Connections.

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- C. Product Data: Show component construction, anchorage method, and hardware.
- D. Samples: Submit two panel finish samples illustrating color and finish.
- E. Manufacturer's Installation Instructions: Include any special procedures required by project conditions.
- F. Manufacturer's Qualification Statement.
- G. Operation Data: Include normal operation, troubleshooting, and adjusting.
- H. Maintenance Data: Include data for motor and transmission, shaft and gearing, lubrication frequency, spare part sources.
- I. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

#### 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least three years documented experience.
- C. Comply with applicable code for motor and motor control requirements.
- D. Products Requiring Electrical Connection: Listed and classified by ITS (DIR), UL (DIR), or testing firm acceptable to authorities having jurisdiction, as suitable for purpose specified.

#### 1.06 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Warranty: Include coverage for electric motor and transmission.
- D. Provide five year manufacturer warranty for electric operating equipment.
- E. Special Finish Warranty: Manufacturer agrees to repair or replace components that show evidence of deterioration of factory-applied finishes within specified warranty period: 10 years from date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Sectional Doors:
  - 1. C.H.I. Overhead Doors: [www.chiohd.com/sle](http://www.chiohd.com/sle).
  - 2. Clopay Building Products: [www.clopaydoor.com/sle](http://www.clopaydoor.com/sle).
  - 3. Raynor Garage Doors: [www.raynor.com/#sle](http://www.raynor.com/#sle).
  - 4. Wayne-Dalton, a Division of Overhead Door Corporation: [www.wayne-dalton.com/#sle](http://www.wayne-dalton.com/#sle).

### **2.02 STEEL DOORS**

- 1. Performance: Withstand positive and negative wind loads equal to 1.5 times design wind loads specified by local code or 20 lb/sq ft, whichever is higher, without damage or permanent set, when tested in accordance with ASTM E330/E330M, using 10 second duration of maximum load.
- 2. Operability Under Wind Load: Design overhead doors to remain operable under uniform pressure of 20 lbf/sq ft wind load, acting inward and outward.
- 3. Air Infiltration: Maximum rate of 0.08 cfm/sq. ft. at 15 mph when tested according to ASTM E 283.
- 4. Door Nominal Thickness: 2 inches thick, min..
- 5. Exterior Finish: Factory finished with polyester baked enamel; color as selected by Architect.
- 6. Interior Finish: Factory finished with polyester baked enamel; color as selected by Architect.
- 7. Glazed Lights: Full panel width, one row; set in place with security glazing stops.
- 8. Operation: Electric, connect to induction loop system.
- 9. R-Value: R-15 min.
- B. Door Panels: Steel construction; outer steel sheet of 20 gage, 0.0359 inch minimum thickness, flush profile; inner steel sheet of 20 gage, 0.0359 inch minimum thickness, flat profile; core reinforcement sheet steel roll formed to channel shape, rabbeted weather joints at meeting rails; polyurethane insulation.
- C. Window Frame: To match door panels, finish to match.
- D. Glazing: Fully tempered glass; insulated; clear; 1 inch thick.

### **2.03 COMPONENTS**

- A. Track: Rolled galvanized steel, 0.090 inch minimum thickness; 3 inch wide, continuous one piece per side; galvanized steel mounting brackets 1/4 inch thick. (provide high lift track)
- B. Spring Counterbalance: Sized to weight of door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of die cast aluminum with high strength galvanized aircraft cable. Sized with a minimum 5 to 1 safety factor.
  - 1. High cycle spring: 100,000 cycles.
- C. Sill Weatherstripping: Resilient hollow rubber strip, one piece; fitted to bottom of door panel, full length contact.
- D. Jamb Weatherstripping: Roll formed steel section full height of jamb, fitted with resilient weatherstripping, placed in moderate contact with door panels.
- E. Head Weatherstripping: EPDM rubber seal, one piece full length.
- F. Panel Joint Weatherstripping: Neoprene foam seal, one piece full length.

### **2.04 MATERIALS**

- A. Sheet Steel: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G60/Z180 coating, plain surface.
- B. Metal Primer Paint: Zinc molybdate type.

## 2.05 ELECTRIC OPERATION

- A. Operator, Controls, Actuators, and Safeties: Conform to UL 325; provide products listed by ITS (DIR), UL (DIR), or testing agency acceptable to authorities having jurisdiction.
- B. Electric Operators:
  - 1. Mounting: Side mounted on cross head shaft.
  - 2. Motor Enclosure:
  - 3. Motor Rating: 1/3 hp; continuous duty.
  - 4. 208 volts, three phase, 60 Hz.
  - 5. Motor Controller: NEMA ICS 2, full voltage, reversing magnetic motor starter.
  - 6. Controller Enclosure: NEMA 250, Type 1.
  - 7. Opening Speed: 12 inches per second.
  - 8. Brake: Adjustable friction clutch type, activated by motor controller.
  - 9. Manual override in case of power failure.
  - 10. Refer to Section 26 05 83 for electrical connections.
- C. Control Station: Provide 2 (Open-Close-Stop) continuous-contact control device for each operator complying with UL 325. All operators shall have the ability to control both sectional doors (4 total operators)
  - 1. 24 volt circuit.
  - 2. Surface mounted, at Interior and Exterior.
  - 3. Entrapment Protection Devices: Provide sensing devices and safety mechanisms complying with UL 325.
    - a. Primary Device: Provide NEMA 1 photo eye sensors or NEMA 4X photo eye sensors as required with momentary-contact control device.
- D. Electric Operator: Side mounted on cross head shaft, adjustable safety friction clutch; brake system actuated by independent voltage solenoid controlled by motor starter; enclosed gear driven limit switch; enclosed magnetic cross line reversing starter; mounting brackets and hardware.
  - 1. Door Drive: Operator shall be equipped with roller chain and sprockets, an electrically interlocked, floor level disconnect, a chain hoist for manual operation and an electric solenoid-actuated brake to stop motor and hold the door in any position.
  - 2. Motor Control and Enclosure: LiftMaster Logic 5.0 motor control shall be UL-approved microprocessor solid-state type and shall include the capability to select one of 7 wiring types; additional features shall include a maintenance alert diagnostic system, built-in ports for two (2) plug-in loop detectors, programmable Timer-to-Close with timer defeat input, mid-stop programming capabilities and a maximum run timer to provide motor overrun protection; motor control shall be housed in a NEMA 1 enclosure integral to the operator and shall conform to ANSI/NEMA ICS 6. (5 HP motor does not have Logic control features.)

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- B. Verify that electric power is available and of the correct characteristics.

### 3.02 PREPARATION

- A. Prepare opening to permit correct installation of door unit to perimeter air and vapor barrier seal.

### 3.03 INSTALLATION

- A. Install door unit assembly in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.

- C. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- D. Fit and align door assembly including hardware.
- E. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.
- F. Install perimeter trim and closures.

**3.04 TOLERANCES**

- A. Maximum Variation from Plumb: 1/16 inch.
- B. Maximum Variation from Level: 1/16 inch.
- C. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch from 10 ft straight edge.
- D. Maintain dimensional tolerances and alignment with adjacent work.

**3.05 ADJUSTING**

- A. Adjust door assembly for smooth operation and full contact with weatherstripping.
- B. Have manufacturer's field representative present to confirm proper operation and identify adjustments to door assembly for specified operation.

**3.06 CLEANING**

- A. Clean doors and frames.
- B. Remove temporary labels and visible markings.

**3.07 PROTECTION**

- A. Protect installed products from damage until Date of Substantial Completion.
- B. Do not permit construction traffic through overhead door openings after adjustment and cleaning.

**END OF SECTION 08 36 13**

## SECTION 08 43 13 - ALUMINUM-FRAMED STOREFRONTS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Aluminum-framed storefront, with vision glass.
- B. Aluminum doors and frames.
- C. Weatherstripping.

#### 1.02 RELATED REQUIREMENTS

- A. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 08 71 00 - Door Hardware: Hardware items other than specified in this section.
- C. Section 08 80 00 - Glazing: Glass and glazing accessories.

#### 1.03 REFERENCE STANDARDS

- A. AAMA CW-10 - Care and Handling of Architectural Aluminum from Shop to Site; 2015.
- B. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2020.
- C. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- D. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- E. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021a.
- F. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2021.
- G. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2021.
- H. ASTM E330/E330M - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference; 2014 (Reapproved 2021).
- I. FLA (PAD) - Florida Building Code Online - Product Approval Directory; Current Edition.

#### 1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with installation of other components that comprise the exterior enclosure.
- B. Preinstallation Meeting: Conduct a preinstallation meeting one week before starting work of this section; require attendance by all affected installers.

#### 1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide component dimensions, describe components within assembly, anchorage and fasteners, glass and infill, door hardware, internal drainage details.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
  - 1. Include design engineer's stamp or seal on shop drawings for attachments and anchors.
- D. Samples: Submit two samples illustrating finished aluminum surface, glass, glazing materials.
- E. Manufacturer's Certificate: Certify that the products supplied meet or exceed the specified requirements.
- F. Design Data: Provide framing member structural and physical characteristics, engineering calculations, and dimensional limitations.
- G. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.

- H. Field Quality Control Submittals: Report of field testing for water penetration and air leakage.

#### **1.06 QUALITY ASSURANCE**

- A. Designer Qualifications: Design structural support framing components under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in the State in which the Project is located.
- B. Manufacturer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

#### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished aluminum surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to aluminum when exposed to sunlight or weather.

#### **1.08 FIELD CONDITIONS**

- A. Do not install sealants when ambient temperature is less than 40 degrees F. Maintain this minimum temperature during and 48 hours after installation.

#### **1.09 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
- D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

### **PART 2 PRODUCTS**

#### **2.01 BASIS OF DESIGN -- FRAMING FOR INSULATING GLAZING**

- A. Center-Set Style, Wind-Borne-Debris Resistance Tested:
  - 1. Basis of Design: EFCO Corporation; Series 526, Thermal Impact-Grade Storefront Framing: [www.efcocorp.com/#sle](http://www.efcocorp.com/#sle).
  - 2. Vertical Mullion Dimensions: 2 inches wide by 4-1/2 inches deep.

#### **2.02 ALUMINUM-FRAMED STOREFRONT**

- A. Basis of Design: EFCO Corporation, XTherm Series 403x (T).
  - 1. Other Manufacturers:
    - a. Kawneer North America.
    - b. Oldcastle Building Envelope.
    - c. TRACO.
    - d. Tubelite.
    - e. YKK AP America Inc.
- B. Aluminum-Framed Storefront: Factory fabricated, factory finished aluminum framing members with infill, and related flashings, anchorage and attachment devices.
  - 1. Glazing Rabbet: For 1 inch insulating glazing.
  - 2. Finish: Class I natural anodized.
    - a. Factory finish all surfaces that will be exposed in completed assemblies.
    - b. Touch-up surfaces cut during fabrication so that no natural aluminum is visible in completed assemblies, including joint edges.
    - c. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.

3. Finish Color: clear anodized to match existing.
  4. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors and hardware; fasteners and attachments concealed from view; reinforced as required for imposed loads.
  5. Construction: Eliminate noises caused by wind and thermal movement, prevent vibration harmonics, and prevent "stack effect" in internal spaces.
  6. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.
  7. Expansion/Contraction: Provide for expansion and contraction within system components caused by cycling temperature range of 170 degrees F over a 12 hour period without causing detrimental effect to system components, anchorages, and other building elements.
  8. Movement: Allow for movement between storefront and adjacent construction, without damage to components or deterioration of seals.
  9. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
  10. Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line withinside pane of glazing and heel bead of glazing compound.
  11. Preparation for Window Treatments: Provide reinforced interior horizontal head rail.
- C. Performance Requirements
1. Wind Loads: Design and size components to withstand the specified load requirements without damage or permanent set, when tested in accordance with ASTM E330/E330M, using loads 1.5 times the design wind loads and 10 second duration of maximum load.
    - a. Basic wind speed: 130 mph.
    - b. Exposure category: C.
    - c. Design Wind Loads: Comply with requirements of ASCE 7.
    - d. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
  2. Wind-Borne-Debris Resistance: Identical full-size glazed assembly without auxiliary protection, having Florida Building Code FLA (PAD) approval for Large and Small Missile impact and pressure cycling at design wind pressure.
  3. Condensation Resistance Factor of Framing: 60, minimum, measured in accordance with  $\{\rs\#1\}$ .
  4. Overall U-value Including Glazing: 0.24 Btu/(hr sq ft deg F), maximum.

### 2.03 COMPONENTS

- A. Aluminum Framing Members: Tubular aluminum sections, thermally broken with interior section insulated from exterior, drainage holes and internal weep drainage system.
1. Framing members for interior applications need not be thermally broken.
  2. Glazing Stops: Flush.
- B. Glazing: See Section 08 80 00.
- C. Infill Panels: Insulated, aluminum, with edges formed to fit glazing channel and sealed.
1. Total Nominal Thickness: 1 inch.
  2. Finish: Same as storefront.
- D. Swing Doors: Glazed aluminum.
1. Thickness: 1-3/4 inches.
  2. Top Rail: 4 inches wide.
  3. Vertical Stiles: 4-1/2 inches wide.
  4. Bottom Rail: 10 inches wide.

5. Glazing Stops: Square.
6. Finish: Same as storefront.

#### **2.04 MATERIALS**

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sheet Aluminum: ASTM B209/B209M.
- C. Fasteners: Stainless steel.
- D. Concealed Flashings: Sheet aluminum, 26 gauge, 0.017 inch minimum thickness.
- E. Sill Flashing Sealant: Elastomeric, silicone or polyurethane, compatible with flashing material.
- F. Sealant for Setting Thresholds: Non-curing butyl type.
- G. Glazing Gaskets: Type to suit application to achieve weather, moisture, and air infiltration requirements.
- H. Glazing Accessories: See Section 08 80 00.

#### **2.05 FINISHES**

- A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils thick.
- B. Color: As selected by Architect from manufacturer's standard range.
- C. Touch-Up Materials: As recommended by coating manufacturer for field application.

#### **2.06 HARDWARE**

- A. For each door, include weatherstripping, sill sweep strip, and threshold.
- B. Other Door Hardware: See Section 08 71 00.
- C. Weatherstripping: Wool pile, continuous and replaceable; provide on all doors.
- D. Sill Sweep Strips: Resilient seal type, retracting, of neoprene; provide on all doors.
- E. Threshold: Extruded aluminum, one piece per door opening, ribbed surface; provide on all doors.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that storefront wall openings and adjoining water-resistive and/or air barrier seal materials are ready to receive work of this section.

#### **3.02 INSTALLATION**

- A. Install wall system in accordance with manufacturer's instructions.
- B. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- C. Provide alignment attachments and shims to permanently fasten system to building structure.
- D. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- E. Provide thermal isolation where components penetrate or disrupt building insulation.
- F. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- G. Where fasteners penetrate sill flashings, make watertight by seating and sealing fastener heads to sill flashing.
- H. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- I. Set thresholds in bed of sealant and secure.
- J. Install glass and infill panels using glazing method required to achieve performance criteria; see Section 08 80 00.
- K. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.



**3.03 TOLERANCES**

- A. Maximum Variation from Plumb: 0.06 inch per 3 feet non-cumulative or 0.06 inch per 10 feet, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.

**3.04 ADJUSTING**

- A. Adjust operating hardware and sash for smooth operation.

**3.05 CLEANING**

- A. Remove protective material from pre-finished aluminum surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths, and take care to remove dirt from corners and to wipe surfaces clean.

**3.06 PROTECTION**

- A. Protect installed products from damage until Date of Substantial Completion.

**END OF SECTION 08 43 13**

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**SECTION 08 44 35 - PROTECTIVE FRAMED GLAZING ASSEMBLIES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Interior protective framed glazing assembly.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 08 71 00 - Door Hardware.
- C. Section 08 88 12 - Fire-Rated Glazing

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate with installation of other components that comprise the exterior enclosure.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide evidence of compliance with fire performance criteria and manufacturer's published product data on framing components, glazing, anchorage and fasteners, and doors, if any.
- C. Shop Drawings: Indicate system dimensions, framed opening requirements and tolerances, affected related work, expansion and contraction joint location and details, and field welding required.
- D. Samples: Submit samples as follows illustrating each exposed metal finish of project-specific applications.
- E. Design Data: Submit framing member structural and physical characteristics and engineering calculations, and identify dimensional limitations.
- F. Test Reports: Submit results of full-size mock-up testing for criteria other than fire performance. Reports of tests previously performed on the same design are acceptable.
- G. Hardware Schedule: Complete itemization of each item of hardware to be provided for each door, cross-referenced to door identification numbers in Contract Documents.
- H. Warranty Documentation: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

**1.05 QUALITY ASSURANCE**

- A. Designer Qualifications: Perform design under direct supervision of a Professional Structural Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with at least ten years documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Handle products of this section in accordance with AAMA CW-10.
- B. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

**1.07 FIELD CONDITIONS**

- A. Do not install sealants when ambient temperature is less than 40 degrees F, and maintain above this minimum temperature during and for 48 hours after installation.

**1.08 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.

- C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.

## **PART 2 PRODUCTS**

### **2.01 INTERIOR PROTECTIVE FRAMED GLAZING ASSEMBLIES**

- A. Manufacturers:
  - 1. Basis of Design: SAFTIFIRST, a division of O'Keeffe's Inc; GPX Architectural Series with fire resistive doors: [www.safti.com/#sle](http://www.safti.com/#sle).
  - 2. Technical Glass Products; Fireframes SG Curtainwall Series with Fireframes Designer Series doors: [www.fireglass.com/#sle](http://www.fireglass.com/#sle).
  - 3. Vetrotech North America; VDS 60 with VDS Doors: [www.vetrotechusa.com/#sle](http://www.vetrotechusa.com/#sle).
  - 4. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Provide factory fabricated, factory finished framing members with glazing and related flashings, anchorage and attachment devices.
- C. Structural Performance: Design to support dead loads and horizontal live loads equivalent to the following; coordinate connection to main structural members.
  - 1. Design Live Loads: Comply with requirements of ASCE 7
  - 2. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
  - 3. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths or 3/4 inch, whichever is less, under specified design load.
- D. Fire Performance: Provide hourly fire-resistance-rating as indicated; tested as an assembly including glazing in compliance with ASTM E119 or UL 263 and requirements of local authorities having jurisdiction.
  - 1. Acceptable evidence of compliance includes listing by UL (DIR), ITS (DIR), or testing agency acceptable to authorities having jurisdiction.

### **2.02 COMPONENTS**

- A. Framing Members: Formed steel structural members with aluminum cladding and non-combustible thermally-resistive material as required for fire rating.
  - 1. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for imposed loads.
  - 2. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.

### **2.03 MATERIALS**

- A. Extruded Aluminum: ASTM B221 (ASTM B221M).
- B. Sealants Within Fire-Rated Assembly: As required by fire-rating and manufacturer's assembly.
- C. Sealants: See Section 07 92 00 for additional information.
- D. Glazing Gaskets: Type to suit application to achieve fire-rating, weather, moisture, and air infiltration requirements.

### **2.04 DOORS AND HARDWARE**

- A. Doors: Glazed aluminum.
  - 1. Thickness: 2 inches.
  - 2. Top Rail: 4 inches wide.
  - 3. Vertical Stiles: 4-1/2 inches wide.
  - 4. Bottom Rail: 6 inches wide.
  - 5. Glazing Stops: Square.
  - 6. Finish: Same as framing.

- B. Door Hardware:
  - 1. Types: See Section 08 71 00.
  - 2. Finish on Hand-Contacted Items: Polished chrome.

## 2.05 FINISHES

- A. Finishing: Apply factory finish to surfaces that will be exposed in completed assemblies.
  - 1. Touch-up surfaces cut during fabrication so that no natural metal surfaces are visible in completed assemblies, including joint edges.
- B. Aluminum Finish: Class I natural anodized.
  - 1. Apply factory finish to surfaces that will be exposed in completed assemblies.
  - 2. Coat concealed metal surfaces that will be in contact with cementitious materials or dissimilar metals with bituminous paint.
- C. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils thick.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify dimensions, tolerances, and method of attachment with other work.
- B. Verify that wall openings and adjoining water-resistive barrier materials are ready to receive work of this section; see Section 07 25 00 for additional information.
- C. Verify that anchorage devices have been properly installed and located.

### 3.02 INSTALLATION

- A. Install wall system in accordance with limitations of fire rating and with manufacturer's instructions.
- B. Install framed glazing assemblies in accordance with NFPA 80 and requirements of local authorities having jurisdiction.
- C. Attach to structure to permit sufficient adjustment to accommodate construction tolerances and other irregularities.
- D. Provide alignment attachments and shims to permanently fasten system to building structure.
- E. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- F. Provide thermal isolation where components penetrate or disrupt building insulation.
- G. Install sill flashings. Turn up ends and edges; seal to adjacent work to form water tight dam.
- H. Install door hardware using templates provided.
  - 1. See Section 08 71 00 for hardware installation requirements.
- I. Touch-up minor damage to factory applied finish; replace components that cannot be satisfactorily repaired.

### 3.03 TOLERANCES

- A. Maximum Variation from Plumb: 1/16 inch every 3 feet non-cumulative or 1/2 inch per 100 ft, whichever is less.
- B. Maximum Misalignment of Two Adjoining Members Abutting in Plane: 1/32 inch.
- C. Sealant Space Between Mullions and Adjacent Construction: Maximum of 3/4 inch and minimum of 1/4 inch.

### 3.04 ADJUSTING

- A. Adjust doors for smooth operation.

### 3.05 CLEANING

- A. Remove protective material from pre-finished surfaces.
- B. Wash down surfaces with a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from corners. Wipe surfaces clean.

**3.06 PROTECTION**

A. Protect installed products from damage until Date of Substantial Completion.

**END OF SECTION 08 44 35**

**SECTION 08 71 00 - DOOR HARDWARE**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:

- 1. Swinging doors.
- 2. Sliding doors.
- 3. Other doors to the extent indicated.

- B. Door hardware includes, but is not necessarily limited to, the following:

- 1. Mechanical door hardware.
- 2. Electromechanical door hardware.
- 3. Cylinders specified for doors in other sections.

- C. Related Sections:

- 1. Division 08 Section "Hollow Metal Doors and Frames".
- 2. Division 08 Section "Flush Wood Doors".

Division 08 Section "Stile and Rail Wood Doors".

- 3. Division 08 Section "Sound Control Hollow Metal Door Assemblies".
- 4. Division 08 Section "Sound Control Wood Door Assemblies".
- 5. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- 6. Division 28 Section "Access Control Hardware Devices".

- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

- 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- 2. ANSI/SDI A250.13 - Testing and Rating of Severe Windstorm Resistant Components for Swing Door Assemblies.
- 3. ASTM E1886 - Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Shutters Impacted by Missiles and Exposed to Cyclic Pressure Differentials.
- 4. ASTM E1996 - Standard specification for performance of exterior windows, curtain walls, doors and storm shutters impacted by Windborne Debris in Hurricanes.

5. ICC/IBC - International Building Code.
6. NFPA 70 - National Electrical Code.
7. NFPA 80 - Fire Doors and Windows.
8. NFPA 101 - Life Safety Code.
9. NFPA 105 - Installation of Smoke Door Assemblies.
10. TAS-201-94 - Impact Test Procedures.
11. TAS-202-94 - Criteria for Testing Impact and Non-Impact Resistant Building Envelope Components using Uniform Static Air Pressure.
12. TAS-203-94 - Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.
13. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:

1. ANSI/BHMA Certified Product Standards - A156 Series.
2. UL10C - Positive Pressure Fire Tests of Door Assemblies.
3. ANSI/UL 294 - Access Control System Units.
4. UL 305 - Panic Hardware.
5. ANSI/UL 437- Key Locks.

### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing, fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
  1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.



- b. Manufacturer of each item.
  - c. Fastenings and other pertinent information.
  - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
  - e. Explanation of abbreviations, symbols, and codes contained in schedule.
  - f. Mounting locations for door hardware.
  - g. Door and frame sizes and materials.
  - h. Warranty information for each product.
4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
    - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
    - b. Complete (risers, point-to-point) access control system block wiring diagrams.
    - c. Wiring instructions for each electronic component scheduled herein.
  2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
1. Hurricane Resistant Openings (State of Florida): Within the State of Florida, provide copy of current State of Florida Product Approval as proof of compliance that doors, frames and hardware for exterior opening assemblies have been tested and approved for use at the wind load and design pressure and debris impact resistance level requirements specified for the Project.

- a. Hurricane Resistant Components (State of Florida): Within the State of Florida, provide copy of independent, third party certified listing to ANSI A250.13.
2. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.
- B. Project Record Documents: Provide record documentation of as-built door hardware sets in digital format (.pdf, .docx, .xlsx, .csv) and as required in Division 01, Project Record Documents.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
  2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Hurricane Resistant Exterior Openings (State of Florida including the High Velocity Hurricane Zone (HVHZ)): Provide exterior door hardware as complete and tested assemblies, or component assemblies, including approved doors and frames specified under Section 081113 "Hollow Metal Doors and Frames", to meet the design pressures, debris impact resistance, and glass and glazing requirements as detailed in the current State of Florida building code sections applicable to the Project.
1. Each unit to bear third party permanent label in accordance with the Florida Building Code requirements.
- G. Each unit to bear third party permanent label indicating compliance with the referenced testing standards.
- H. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
1. Function of building, purpose of each area and degree of security required.
  2. Plans for existing and future key system expansion.
  3. Requirements for key control storage and software.
  4. Installation of permanent keys, cylinder cores and software.
  5. Address and requirements for delivery of keys.
- I. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
  2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
  3. Review sequence of operation narratives for each unique access controlled opening.
  4. Review and finalize construction schedule and verify availability of materials.
  5. Review the required inspecting, testing, commissioning, and demonstration procedures

- J. At completion of installation, provide written documentation that components were applied according to manufacturer's instructions and recommendations and according to approved schedule.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

#### 1.7 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

#### 1.8 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.

3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  4. Electrical component defects and failures within the systems operation.
- C. Warranty Period: Unless otherwise indicated, warranty shall be one year from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 BUTT HINGES

- A. Hinges: ANSI/BHMA A156.1 butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
1. Quantity: Provide the following hinge quantity:
    - a. Two Hinges: For doors with heights up to 60 inches.
    - b. Three Hinges: For doors with heights 61 to 90 inches.
    - c. Four Hinges: For doors with heights 91 to 120 inches.
    - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
  2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
    - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
    - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
  3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
    - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
    - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
  4. Hinge Options: Comply with the following:
    - a. Non-removable Pins: With the exception of electric through wire hinges, provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for all out-swinging lockable doors.
  5. Manufacturers:
    - a. McKinney (MK) - TA/T4A Series, 5-knuckle.

## 2.2 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

- a. Pemko (PE) - EL-CEPT Series.
- b. Securitron (SU) - EL-CEPT Series.

- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

- a. McKinney (MK) - Electrical Connecting Kit: QC-R001.
- b. McKinney (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

- a. McKinney (MK) - QC-C Series.

## 2.3 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: Provide products conforming to ANSI/BHMA A156.3 and A156.16, Grade 1.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
5. Manufacturers:

- a. Rockwood (RO).
- B. Door Push Plates and Pulls: ANSI/BHMA A156.6 door pushes and pull units of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
- 1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
  - 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
  - 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
  - 4. Pulls, where applicable, shall be provided with a 10" clearance from the finished floor on the push side to accommodate wheelchair accessibility.
  - 5. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets. When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
  - 6. Manufacturers:
    - a. Rockwood (RO).

#### 2.4 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
  - 1. Threaded mortise cylinders with rings and cams to suit hardware application.
  - 2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  - 3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
  - 4. Tubular deadlocks and other auxiliary locks.
  - 5. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
  - 6. Keyway: Manufacturer's Standard.
- C. Large Format Interchangeable Cores: Provide removable cores (LFIC) as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.
- D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1 Certified Products Directory (CPD) listed cylinders employing a utility patented and restricted keyway requiring the use of

a patented key. Cylinders are to be protected from unauthorized manufacture and distribution by manufacturer's United States patents. Cylinders are to be factory keyed with owner having the ability for on-site original key cutting.

1. Patented key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
2. Manufacturers:
  - a. Corbin Russwin (RU) - Access 3 AP.
  - b. Sargent (SA) - Degree DGI.

E. Keying System: Each type of lock and cylinders to be factory keyed.

1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. New System: Key locks to a new key system as directed by the Owner.

F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).
3. Construction Keys (where required): Ten (10).

G. Construction Keying: Provide construction master keyed cylinders.

H. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.5 KEY CONTROL

A. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Manufacturers:
  - a. Lund Equipment (LU).
  - b. MMF Industries (MM).
  - c. Telkee (TK).



## 2.6 MORTISE LOCKS AND LATCHING DEVICES

- A. Mortise Locksets, Grade 1 (Heavy Duty): Provide ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed mortise locksets. Listed manufacturers shall meet all functions and features as specified herein.
1. Manufacturers:
    - a. Corbin Russwin Hardware (RU) - ML2000 Series.
    - b. Sargent Manufacturing (SA) - 8200 Series.

## 2.7 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
  2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
  3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
  4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
1. Strikes for Mortise Locks and Latches: BHMA A156.13.
  2. Strikes for Bored Locks and Latches: BHMA A156.2.
  3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
  4. Dustproof Strikes: BHMA A156.16.

## 2.8 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
1. Exit devices shall have a five-year warranty.
  2. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.
  3. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.

4. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
  5. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
  6. Flush End Caps: Provide flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.
  7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
    - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
    - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
  8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
  9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
  10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
  11. Rail Sizing: Provide exit device rails factory sized for proper door width application.
  12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
  13. Hurricane and Storm Shelter Compliance: Devices to be U.L. listed for windstorm assemblies where applicable. Provide the appropriate hurricane or storm shelter products that have been independently third party tested, certified, and labeled to meet state and local windstorm building codes applicable to project.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed exit devices. Listed manufacturers shall meet all functions and features as specified herein.
1. Provide exit devices with functions and features as follows:
    - a. Where required by code, provide knurling or abrasive coating on all levers leading to hazardous areas.
    - b. Meets UL and CUL Standard 10C Positive Pressure, Fire Test of Door Assemblies with levers that meet A117.1 Accessibility Code.
    - c. Meets Florida Building Code FL2998 and UL Certification Directory ZHEM.R21744 for latching hardware for hurricane requirements.
    - d. Meets UL Certification Directory ZHLL.R21744 for products used in windstorm rated assemblies.
    - e. Five-year limited warranty for mechanical features.

2. Manufacturers:
  - a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
  - b. Sargent Manufacturing (SA) - 80 Series.

## 2.9 SURFACE DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
  1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
  2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
  3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
  4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
  6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
  1. Heavy duty surface mounted door closers shall have a 30-year warranty.
  2. Manufacturers:
    - a. Corbin Russwin Hardware (RU) - DC6000 Series.
    - b. Norton Rixson (NO) - 7500 Series.
    - c. Sargent Manufacturing (SA) - 351 Series.
- C. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and

pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.

1. Manufacturers:
  - a. Corbin Russwin Hardware (RU) - DC6000 Series.
  - b. Norton Rixson (NO) - 8500 Series.
  - c. Sargent Manufacturing (SA) - 1431 Series.

## 2.10 ARCHITECTURAL TRIM

### A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
4. Protection Plates: ANSI/BHMA A156.6 protection plates (kick, armor, or mop), fabricated from the following:
  - a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
  - a. Rockwood (RO).

## 2.11 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Manufacturers:
  - a. Rockwood (RO).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
  1. Manufacturers:
    - a. Norton Rixson (RF).
    - b. Rockwood (RO).
    - c. Sargent Manufacturing (SA).

## 2.12 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NFPA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  1. Pemko (PE).

## 2.13 ELECTRONIC ACCESSORIES

- A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
1. Manufacturers:
    - a. Securitron (SU) - DPS Series.
- B. Switching Power Supplies: Provide power supplies with either single or dual voltage configurations at 12 or 24VDC. Power supplies shall have battery backup function with an integrated battery charging circuit and shall provide capability for power distribution, direct lock control and Fire Alarm Interface (FAI) through add on modules. Power supplies shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs.
1. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.
  2. Manufacturers:
    - a. Securitron (SU) - AQD Series.
- C. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.
1. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw for the specified electrified hardware and access control equipment.
  2. Manufacturers:
    - a. Securitron (SU) - AQL Series.

2.14 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.15 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
  - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
  2. DHI TDH-007-20: Installation Guide for Doors and Hardware.
  3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Push Plates and Door Pulls: When through-bolt fasteners are in the same location as a push plate, countersink the fasteners flush with the door face allowing the push plate to sit flat against the door.
- E. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- F. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

### 3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final



operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
  - 1. Quantities listed are for each pair of doors, or for each single door.
  - 2. The supplier is responsible for handling and sizing all products.
  - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
  - 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Manufacturer's Abbreviations:
  - 1. MK - McKinney
  - 2. SU - Securitron
  - 3. RO - Rockwood
  - 4. SA - SARGENT
  - 5. RF - Rixson
  - 6. PE - Pemko
  - 7. OT - Other

**Fire Station Hardware Sets****Set: 1.0**

Doors: 101

Description: EXTERIOR ALUMINUM PAIR W/ CARD READER

6 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP	US32D	MK
2 Electric Power Transfer	EL-CEPT	630	SU
1 Surface Vert Rod Exit	DG164 55 56 HC4 8710 306 x 862	US32D	SA
1 Surface Vert Rod Exit, Exit Only	HC4 8710 862	US32D	SA
1 Core	DG1 6300	US15	SA
2 Surface Closer	351 CPS	EN	SA
1 Threshold	2005AT		PE
2 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
2 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: All exterior doors on this project shall meet FBC standards for Level E windstorm. The door hardware specified is listed as a basis of design. If alternate hardware is proposed, please provide third-party test results and compliance information to architect.

Door is normally closed and locked.

When presented with valid credentials, reader unlocks door.

During power failure or fire alarm, door remains locked (fail secure).

REX switch within lock allows free egress at all times.

**Set: 2.0**

Doors: 105, 109B

Description: EXTERIOR ALUMINUM W/ CARD READER PROVISIONS ONLY

3 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP	US32D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Surface Vert Rod Exit	DG164 55 56 HC4 8710 306 x 862	US32D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	351 CPS	EN	SA
1 Threshold	2005AT		PE
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: Door is normally closed and locked.

When presented with valid credentials, reader unlocks door.

During power failure or fire alarm, door remains locked (fail secure).

REX switch within lock allows free egress at all times.

All exterior doors on this project shall meet FBC standards for Level E windstorm. The door hardware specified is listed as a basis of design. If alternate hardware is proposed, please provide third-party test results and compliance information to architect.

**Set: 3.0**

Doors: 100A, 114A, 114D, 119A, 121

Description: EXTERIOR ALUMINUM W/ CARD READER

3 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP	US32D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Surface Vert Rod Exit	DG164 55 56 HC4 8710 306 x 862	US32D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	351 CPS	EN	SA
1 Threshold	2005AT		PE
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: Door is normally closed and locked.

When presented with valid credentials, reader unlocks door.

During power failure or fire alarm, door remains locked (fail secure).

REX switch within lock allows free egress at all times.

All exterior doors on this project shall meet FBC standards for Level E windstorm. The door hardware specified is listed as a basis of design. If alternate hardware is proposed, please provide third-party test results and compliance information to architect.

**Set: 4.0**

Doors: 101A, 101B, 101C

Description: OVERHEAD DOOR

1 Mortise Cylinder	DG1 41	US32D	SA
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Notes: Hardware by overhead door manufacturer. Verify cylinder requirements, if any.

**Set: 5.0**

Doors: 114B, 114C, 114E

Description: FOUR-PANEL BI-FOLD

Notes: Hardware by door manufacturer. Verify cylinder requirements, if any.

**Set: 6.0**

Doors: 120

Description: INTERVIEW ROOM W/ CARD READER BOTH SIDES

3 Hinge, Full Mortise	TA2714 NRP	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Fail Secure Lock	DG164 8271-24V LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Wall Stop	409	US26D	RO
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
2 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: Door is normally closed and locked.  
 When presented with valid credentials, reader unlocks door.  
 During power failure or fire alarm, door remains locked (fail secure).  
 Card reader on both sides allows authorized entry or egress.

**Set: 7.0**

Doors: 119B

Description: ENTRY-KITCHENETTE W/ CARD READER

3 Hinge, Full Mortise	TA2714 NRP	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Fail Secure Lock	DG164 RX 8271-24V LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
3 Silencer	608-RKW		RO
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: Door is normally closed and locked.  
 When presented with valid credentials, reader unlocks door.  
 During power failure or fire alarm, door remains locked (fail secure).  
 REX switch within lock allows free egress at all times.

**Set: 8.0**

Doors: 106, 107, 108, 123

Description: BATH/SHOWER

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Privacy Lock	V21 8265 LNL	US26D	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Mop Plate	K1050 4" x LAR	US32D	RO

1 Wall Stop	409	US26D	RO
3 Silencer	608-RKW		RO

**Set: 9.0**

Doors: 117

Description: ELECTRICAL PAIR

6 Hinge, Full Mortise	TA2714	US26D	MK
2 Flush Bolt	555	US26D	RO
1 Dust Proof Strike	570	US26D	RO
1 Storeroom/Closet Lock	DG164 8204 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
2 Surf Overhead Stop	10-x36	630	RF
2 Silencer	608-RKW		RO

**Set: 10.0**

Doors: 116

Description: MECHANICAL PAIR

6 Hinge, Full Mortise	TA2714	US26D	MK
2 Flush Bolt	555	US26D	RO
1 Dust Proof Strike	570	US26D	RO
1 Storeroom/Closet Lock	DG164 8204 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
2 Surf Overhead Stop	10-x36	630	RF
2 Silencer	608-RKW		RO
2 Gasketing	S88D		PE
2 Door Bottom	4131CRL		PE
1 Threshold	171A		PE

**Set: 11.0**

Doors: 103

Description: IT PAIR W/CARD READER

6 Hinge, Full Mortise	TA2714	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Fail Secure Lock	DG164 RX 8271-24V LNL	US26D	SA
1 Core	DG1 6300	US15	SA
2 Surf Overhead Stop	10-x36	630	RF
2 Silencer	608-RKW		RO
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

**Set: 12.0**

Doors: 118

Description: EMS STORAGE W/ CARD READER

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Fail Secure Lock	DG164 RX 8271-24V LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
3 Silencer	608-RKW		RO
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

**Set: 13.0**

Doors: 102, 122

Description: OFFICE

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Office/Entry Lock	DG164 8205 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
3 Silencer	608-RKW		RO

**Set: 14.0**

Doors: 113

Description: DECON TOILET/SHOWER

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Flush Bolt	555	US26D	RO
1 Dust Proof Strike	570	US26D	RO
1 Privacy Lock	DG164 8237 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
1 Gasketing	S88D		PE
1 Door Bottom	4131CRL		PE
1 Threshold	171A		PE
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

**Set: 15.0**

Doors: 112B

Description: DECONTAMINATION

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Flush Bolt	555	US26D	RO
1 Dust Proof Strike	570	US26D	RO
1 Privacy Lock	DG164 8237 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
1 Gasketing	S88D		PE
1 Door Bottom	4131CRL		PE
1 Threshold	171A		PE

**Set: 16.0**

Doors: 115

Description: LAUNDRY/BUNKER GEAR ROOM

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Classroom Lock	DG164 8237 LNL	US26D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
1 Gasketing	S88D		PE
1 Door Bottom	4131CRL		PE
1 Threshold	171A		PE

**Set: 17.0**

Doors: 110

Description: CAPTAIN'S ROOM

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Passage Latch	8215 LNL	US26D	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
3 Silencer	608-RKW		RO

**Set: 18.0**

Doors: 100B, 109A, 111B, 112A

Description: GROUP BUNK/DAY ROOM/AIR LOCK

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Passage Latch	8215 LNL	US26D	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO

1 Gasketing	S88D		PE
<b>Set: 19.0</b>			
Doors: 111A			
Description: AIR LOCK TO APPARATUS BAY			
3 Hinge, Full Mortise	TA2714	US26D	MK
1 Electric Power Transfer	EL-CEPT	630	SU
1 Passage Latch	8215 LNL	US26D	SA
1 Surface Closer	1431 O / P9	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Wall Stop	409	US26D	RO
1 Gasketing	S88D		PE
1 Door Bottom	4131CRL		PE
1 Threshold	171A		PE
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

**Storage Building (ALT1) Hardware Sets**

**Set: 1.0**

Doors: 002

Description: EXTERIOR STORAGE BUILDING

3 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP	US32D	MK
1 Surface Vert Rod Exit	DG164 HC4 8710 306 x 862	US32D	SA
1 Core	DG1 6300	US15	SA
1 Surface Closer	351 CPS	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	303AS		PE
1 Sweep	315CN		PE
1 Threshold	2005AT		PE

Notes: All exterior doors on this project shall meet FBC standards for Level E windstorm. The door hardware specified is listed as a basis of design. If alternate hardware is proposed, please provide third-party test results and compliance information to architect.

**Set: 2.0**

Doors: 001

Description: EXTERIOR STORAGE BUILDING W/ CARD READER

3 Hinge, Full Mortise, Hvy Wt	T4A3386 NRP	US32D	MK
1 Surface Vert Rod Exit	DG164 HC4 8710 306 x 862	US32D	SA
1 Core	DG1 6300	US15	SA



1 Surface Closer	351 CPS	EN	SA
1 Kick Plate	K1050 8" x LAR	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	303AS		PE
1 Sweep	315CN		PE
1 Threshold	2005AT		PE
1 ElectroLynx Harness	QC-C1500P		MK
1 Wiring Diagram	WD-SYSPK		SA
1 Card Reader	by security		OT
1 Position Switch	DPS-M/W-BK		SU
1 Power Supply	AQL Series as Required		SU

Notes: All exterior doors on this project shall meet FBC standards for Level E windstorm. The door hardware specified is listed as a basis of design. If alternate hardware is proposed, please provide third-party test results and compliance information to architect.

**Set: 3.0**

Doors: 001A, 002A

Description: OVERHEAD SECTIONAL DOOR

1 Mortise Cylinder	DG1 41	US32D	SA
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Notes: Hardware by overhead door manufacturer. Verify cylinder requirements, if any.

END OF SECTION 08 71 00

**SECTION 08 80 00 - GLAZING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Insulating glass units.
- B. Glazing units.
- C. Glazing compounds.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 92 00 - Joint Sealants: Sealants for other than glazing purposes.
- B. Section 08 11 13 - Hollow Metal Doors and Frames: Glazed lites in doors.
- C. Section 08 14 16 - Flush Wood Doors: Glazed lites in doors.
- D. Section 08 43 13 - Aluminum-Framed Storefronts: Glazing provided as part of storefront assembly.
- E. Section 08 44 35 - Protective Framed Glazing Assemblies: Glazing fire-tested as part of wall assembly.
- F. Section 10 28 00 - Toilet, Bath and Laundry Accessories: Mirrors.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by each of the affected installers.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data on Insulating Glass Unit Glazing Types: Provide structural, physical and environmental characteristics, size limitations, special handling and installation requirements.
- C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.
- D. Samples: Submit two samples of glass units.
- E. Certificate: Certify that products of this section meet or exceed specified requirements.
- F. Manufacturer's qualification statement.
- G. Installer's qualification statement.
- H. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.05 QUALITY ASSURANCE**

- A. Perform Work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods. Maintain one copy on site.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years documented experience.

**1.06 FIELD CONDITIONS**

- A. Do not install glazing when ambient temperature is less than 40 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

**1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Insulating Glass Units: Provide a ten (10) year manufacturer warranty to include coverage for seal failure, interpane dusting or misting, including providing products to

replace failed units.

## **PART 2 PRODUCTS**

### **2.01 PERFORMANCE REQUIREMENTS - EXTERIOR GLAZING ASSEMBLIES**

- A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads, and to withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
  - 1. Design Pressure: Calculated in accordance with applicable codes.
  - 2. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
  - 3. Provide glass edge support system sufficiently stiff to limit the lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
  - 4. Glass thicknesses listed are minimum.
- B. Weather-Resistive Barrier Seals: Provide completed assemblies that maintain continuity of building enclosure water-resistive barrier, vapor retarder, and/or air barrier.
  - 1. In conjunction with weather barrier related materials described in other sections.
  - 2. To utilize inner pane of multiple pane insulating glass units for continuity of vapor retarder and/or air barrier seal.
  - 3. To maintain a continuous vapor retarder and/or air barrier throughout glazed assembly from glass pane to heel bead of glazing sealant.
- C. Thermal and Optical Performance: Provide exterior glazing products with performance properties as indicated. Performance properties are in accordance with manufacturer's published data as determined with the following procedures and/or test methods:
  - 1. Center of Glass U-Value: Comply with NFRC 100 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
  - 2. Center of Glass Solar Heat Gain Coefficient (SHGC): Comply with NFRC 200 using Lawrence Berkeley National Laboratory (LBNL) WINDOW 6.3 computer program.
  - 3. Solar Optical Properties: Comply with NFRC 300 test method.

### **2.02 GLASS MATERIALS**

- A. Float Glass: Provide float glass based glazing unless otherwise indicated.
  - 1. Annealed Type: ASTM C1036, Type I - Transparent Flat, Class 1 - Clear, Quality - Q3.
  - 2. Kind HS - Heat-Strengthened Type: Complies with ASTM C1048.
  - 3. Kind FT - Fully Tempered Type: Complies with ASTM C1048.
  - 4. Impact Resistant Safety Glass: Complies with ANSI Z97.1 and 16 CFR 1201 criteria; Class A/Category II.
  - 5. Thicknesses: As indicated; provide greater thickness as required for exterior glazing wind load design.
- B. Laminated Glass: Float glass laminated in accordance with ASTM C1172.
  - 1. Laminated Safety Glass: Complies with ANSI Z97.1 - Class B or 16 CFR 1201 - Category I impact test requirements.

### **2.03 INSULATING GLASS UNITS**

- A. Manufacturers:
  - 1. AGC Flat Glass North America.
  - 2. Guardian Industries Corp: [www.sunguardglass.com](http://www.sunguardglass.com).
  - 3. Pilkington North America Inc: [www.pilkington.com/na](http://www.pilkington.com/na).
  - 4. PPG Industries, Inc: [www.ppgideascales.com](http://www.ppgideascales.com).
  - 5. Old Castle Glass, a CRH Company.
- B. Insulating Glass Units: Types as indicated.

1. Durability: Certified by an independent testing agency to comply with ASTM E2190.
  2. Coated Glass: Comply with requirements of ASTM C1376 for pyrolytic (hard-coat) or magnetic sputter vapor deposition (soft-coat) type coatings on flat glass; coated vision glass, Kind CV; coated overhead glass, Kind CO; or coated spandrel glass, Kind CS.
  3. Warm-Edge Spacers: Low conductivity thermoplastic and stainless steel.
    - a. Spacer Width: As required for specified insulating glass unit.
  4. Spacer Color: Black.
  5. Edge Seal:
    - a. Dual-Sealed System: Provide polyisobutylene sealant as primary seal applied between spacer and glass panes, and silicone, polysulfide, or polyurethane sealant as secondary seal applied around perimeter.
  6. Color: Black.
  7. Purge interpane space with dry air, hermetically sealed.
- C. Type IG-1 - Insulating Glass Units: Vision glass with ceramic frit, double glazed, safety glazing.
1. Applications: Exterior glazing unless otherwise indicated.
  2. Space between lites filled with argon.
  3. Outboard Lite: Laminated, 1/4 inch thick, minimum.
    - a. Tint: Gray.
    - b. Coating: Low-E (solar control type), on #2 surface.
  4. Frit Pattern: Frit Pattern shall provide interior privacy while still allowing light to penetrate and visibility to exterior.
  5. Inboard Lite: Laminated, 1/4 inch thick, minimum.
    - a. Tint: Clear.
    - b. Coating: Low-E, on #3 surface.
  6. Total Thickness: 1 inch.
  7. Air Space Thickness: 1/2 inch.
  8. Thermal Transmittance (U-Value), Winter - Center of Glass: .29, minimum.
  9. Solar Heat Gain Coefficient (SHGC): .32, minimum.
  10. Glazing Method: Wet glazing method, sealant and sealant.
- D. Type IG-3 - Insulating Glass Units: Spandrel glazing.
1. Applications: Exterior spandrel glazing unless otherwise indicated.
  2. Space between lites filled with argon.
  3. Outboard Lite: Annealed float glass, 1/4 inch thick, minimum.
    - a. Tint: Clear.
    - b. Coating: Same as on vision units, on #2 surface.
  4. Inboard Lite: Heat-strengthened float glass, 1/4 inch thick.
    - a. Tint: Clear.
    - b. Opacifier Color: As selected by architect from full range.
  5. Total Thickness: 1 inch.
  6. Thermal Transmittance (U-Value), Winter - Center of Glass: 30, minimum.
  7. Glazing Method: Dry glazing method, gasket glazing.

## 2.04 GLAZING UNITS

- A. Type G-2 - Monolithic Interior Vision Glazing:
1. Applications: Interior glazing unless otherwise indicated.
  2. Glass Type: Fully tempered float glass.
  3. Tint: Clear.
  4. Thickness: 1/4 inch, nominal.

## **2.05 GLAZING COMPOUNDS**

- A. Type GC-5 - Silicone Sealant: Single component; neutral curing; capable of water immersion without loss of properties; non-bleeding, non-staining; ASTM C920 Type S, Grade NS, Class 25, Uses M, A, and G; with cured Shore A hardness range of 15 to 25; color as selected.

## **2.06 ACCESSORIES**

- A. Compatibility: Provide materials with proven record of compatibility with surfaces contacted in installation.
- B. Cleaners, Primers, and Sealers: Type recommended by sealant or gasket manufacturer.
- C. Setting Blocks: Neoprene, with 80 to 90 Shore A durometer hardness. Length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.
- D. Spacer Shims: Neoprene, 50 to 60 Shore A durometer hardness; ASTM C864 Option II. Continuous by one half the height of the glazing stop by thickness to suit application, self adhesive on one face.
- E. Edge Blocks: Neoprene, EPDM, or silicone blocks as required for compatibility with glazing sealant, of size and hardness required to limit lateral movement (side-walking) of glass.
- F. Compressible Filler Rods: Closed-cell or waterproof-jacketed rod stock of synthetic rubber or plastic foam, flexible and resilient, with 5-10 psi compression strength for 25 percent deflection.
- G. Glazing Splines: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; color black.
- H. Glazing Clips: Manufacturer's standard type.

## **PART 3 EXECUTION**

### **3.01 VERIFICATION OF CONDITIONS**

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that the minimum required face and edge clearances are being provided.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- D. Verify that sealing between joints of glass framing members has been completed effectively.
- E. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

### **3.02 PREPARATION**

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

### **3.03 INSTALLATION, GENERAL**

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers, unless more stringent requirements are indicated, including those in glazing referenced standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.

- D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
- F. Prevent glass from contact with any contaminating substances that may be the result of construction operations such as, and not limited to the following; weld splatter, fire-safing, plastering, mortar droppings, and paint.

#### **3.04 INSTALLATION - DRY GLAZING METHOD (GASKET GLAZING)**

- A. Application - Exterior and/or Interior Glazed: Set glazing infills from either the exterior or the interior of the building.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inch from corners.
- C. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.
- D. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.

#### **3.05 INSTALLATION - WET GLAZING METHOD (SEALANT AND SEALANT)**

- A. Application - Exterior Glazed: Set glazing infills from the exterior of the building.
- B. Place setting blocks at 1/4 points and install glazing pane or unit.
- C. Install removable stops with glazing centered in space by inserting spacer shims both sides at 24 inch intervals, 1/4 inch below sight line.
- D. Fill gaps between glazing and stops with \_\_\_\_\_ type sealant to depth of bite on glazing, but not more than 3/8 inch below sight line to ensure full contact with glazing and continue the air and vapor seal.
- E. Apply sealant to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

#### **3.06 FIELD QUALITY CONTROL**

- A. Glass and Glazing product manufacturers to provide field surveillance of the installation of their products.
- B. Monitor and report installation procedures and unacceptable conditions.

#### **3.07 CLEANING**

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than 4 days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

#### **3.08 PROTECTION**

- A. After installation, mark pane with an 'X' by using removable plastic tape or paste; do not mark heat absorbing or reflective glass units.
- B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

**END OF SECTION 08 80 00**

**SECTION 08 88 13 - FIRE-RATED GLAZING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Fire-rated glazing units.

**1.02 RELATED REQUIREMENTS**

- A. Section 08 44 35 - Protective Framed Glazing Assemblies: Glazing tested and provided as part of the wall assembly.

**1.03 REFERENCE STANDARDS**

- A. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials; Current Edition.
- B. ANSI Z97.1 - American National Standard for Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test; 2015 (Reaffirmed 2020).
- C. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016 (Reapproved 2023).
- D. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2022.
- E. ASTM E1300 - Standard Practice for Determining Load Resistance of Glass in Buildings; 2016.
- F. GANA (GM) - GANA Glazing Manual; 2022.
- G. GANA (SM) - GANA Sealant Manual; 2008.
- H. GANA (LGRM) - Laminated Glazing Reference Manual; 2019.
- I. ICC (IBC) - International Building Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- J. IGMA TM-3000 - North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial & Residential Use; 1990 (Reaffirmed 2016).
- K. ITS (DIR) - Directory of Listed Products; Current Edition.
- L. NFPA 252 - Standard Methods of Fire Tests of Door Assemblies; 2022.
- M. UL (DIR) - Online Certifications Directory; Current Edition.
- N. UL 10B - Standard for Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- O. UL 10C - Standard for Positive Pressure Fire Tests of Door Assemblies; Current Edition, Including All Revisions.
- P. UL 263 - Standard for Fire Tests of Building Construction and Materials; Current Edition, Including All Revisions.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene preinstallation meeting one week before starting work of this section; require attendance by each of affected installers.

**1.05 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data on Glazing Unit Glazing Types: Provide structural, physical, and environmental characteristics, size limitations, special handling and installation requirements.
- C. Product Data on Glazing Compounds and Accessories: Provide chemical, functional, and environmental characteristics, limitations, special application requirements, and identify available colors.

**1.06 QUALITY ASSURANCE**

- A. Perform work in accordance with GANA (GM), GANA (SM), GANA (LGRM), and IGMA TM-3000 for glazing installation methods. Maintain one copy on site.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

## 1.07 FIELD CONDITIONS

### 1.08 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Fire-Resistance-Rated Glass:
1. Manufacturers:
    - a. Basis of Design: SAFTIFIRST, a division of O'Keeffe's Inc; SuperLite II-XL: [www.safti.com/#sle](http://www.safti.com/#sle).
    - b. Technical Glass Products; Pilkington Pyrostop: [www.fireglass.com/#sle](http://www.fireglass.com/#sle).
    - c. Vetrotech North America; Contraflam 60: [www.vetrotechusa.com/#sle](http://www.vetrotechusa.com/#sle).
    - d. Substitutions: See Section 01 60 00 - Product Requirements.

### 2.02 PERFORMANCE REQUIREMENTS

- A. Provide type and thickness of exterior glazing assemblies to support assembly dead loads and withstand live loads caused by positive and negative wind pressure acting normal to plane of glass.
1. Comply with ASTM E1300 for design load resistance of glass type, thickness, dimensions, and maximum lateral deflection of supported glass.
  2. Provide glass edge support system sufficiently stiff to limit lateral deflection of supported glass edges to less than 1/175 of their lengths under specified design load.
  3. Glass thicknesses listed are minimum.
- B. Fully Tempered Safety Glass: Comply with ANSI Z97.1 or 16 CFR 1201 criteria for safety glazing used in hazardous locations.

### 2.03 GLASS MATERIALS

### 2.04 GLAZING UNITS

- A. Type FRG-1 - Fire-Resistance-Rated Glazing: Type, thickness, and configuration of glazing that contains flames, smoke, and blocks radiant heat, as required to achieve indicated fire rating period exceeding 45 minutes.
1. See Section 08 44 35 for glazing in fire-rated framing assemblies.
  2. Applications:
    - a. Glazing in fire-rated door assembly.
  3. Provide products listed by ITS (DIR) or UL (DIR) and approved by authorities having jurisdiction.
  4. Safety Glazing Certification: 16 CFR 1201 Category II.
  5. Fire Rating Period: As indicated on drawings.
  6. Markings for Fire-Resistance-Rated Glazing Assemblies: Provide permanent markings on fire-resistance-rated glazing in compliance with ICC (IBC), local building code, and authorities having jurisdiction.
    - a. "W" - meets wall assembly criteria of ASTM E119 or UL 263 fire test standards.
    - b. "D" - meets fire door assembly criteria of NFPA 252, UL 10B, or UL 10C fire test standards.
    - c. "H" - meets fire door assembly hose stream test of NFPA 252, UL 10B, or UL 10C fire test standards.
    - d. "T" - meets temperature rise of not more than 450 degrees F above ambient at end of 30 minutes fire exposure in accordance with NFPA 252, UL 10B, or UL 10C fire test standards.
    - e. "XXX" - placeholder that represents fire rating period, in minutes.



**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that openings for glazing are correctly sized and within tolerances, including those for size, squareness, and offsets at corners.
- B. Verify that minimum required face and edge clearances are provided.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and support framing is ready to receive glazing system.
- D. Verify that sealing between joints of glass framing members has been completed effectively.
- E. Proceed with glazing system installation only after unsatisfactory conditions have been corrected.

**3.02 PREPARATION**

- A. Clean contact surfaces with appropriate solvent and wipe dry within maximum of 24 hours before glazing. Remove coatings that are not tightly bonded to substrates.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant where required for proper sealant adhesion.

**3.03 INSTALLATION - GENERAL**

- A. Install glazing in compliance with written instructions of glass, gaskets, and other glazing material manufacturers unless more stringent requirements are indicated, including those in referenced glazing standards.
- B. Install glazing sealants in accordance with ASTM C1193, GANA (SM), and manufacturer's instructions.
- C. Do not exceed edge pressures around perimeter of glass lites as stipulated by glass manufacturer.
- D. Set glass lites of system with uniform pattern, draw, bow, and similar characteristics.
- E. Set glass lites in proper orientation so that coatings face exterior or interior as indicated.
- F. Prevent glass from contact with contaminating substances that may result from construction operations including, but not limited to weld spatter, fire-safing, plastering, mortar droppings, etc.

**3.04 CLEANING**

- A. Remove excess glazing materials from finish surfaces immediately after application using solvents or cleaners recommended by manufacturers.
- B. Remove nonpermanent labels immediately after glazing installation is complete.
- C. Clean glass and adjacent surfaces after sealants are fully cured.
- D. Clean glass on both exposed surfaces not more than four days prior to Date of Substantial Completion in accordance with glass manufacturer's written recommendations.

**3.05 PROTECTION**

- A. After installation, mark pane with 'X' by using removable plastic tape or paste.
- B. Remove and replace glass that is damaged during construction period prior to Date of Substantial Completion.

**END OF SECTION 08 88 13**

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## SECTION 09 21 16 - GYPSUM BOARD ASSEMBLIES

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Performance criteria for gypsum board assemblies.
- B. Acoustic insulation.
- C. Gypsum sheathing.
- D. Cementitious backing board.
- E. Gypsum wallboard.
- F. Joint treatment and accessories.
- G. Bullet resistant sheathing and wallboard.

#### 1.02 RELATED REQUIREMENTS

- A. Section 07 92 00 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.
- B. Section 09 22 16 - Non-Structural Metal Framing.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
  - 1. Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- C. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.
- D. Test Reports: For stud framing products that do not comply with AISI S220 or ASTM C754, provide independent laboratory reports showing maximum stud heights at required spacings and deflections.
- E. Ballistic Test Reports: Indicate compliance of bullet-resistant sheathing and wallboard assemblies with specified requirements.

#### 1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing gypsum board installation and finishing, with minimum 3 years of experience.
- B. Documents at Project Site: Maintain at the project site a copy of reference standard documents containing execution requirements.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01 74 19 - Construction Waste Management and Disposal for packaging waste requirements.
- B. Store gypsum products and accessories indoors and keep above freezing. Elevate boards above floor, on nonwicking supports, in accordance with manufacturer's recommendations.
- C. Store metal products to prevent corrosion.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store materials inside under cover and keep them dry and protected against weather, condensation, direct sunlight, construction traffic, and other potential causes of damage. Stack panels flat and supported on risers on a flat platform to prevent sagging.

#### 1.07 FIELD CONDITIONS

- A. Comply with ASTM C840 requirements or gypsum board manufacturer's written instructions, whichever are more stringent.

- B. Do not install paper-faced gypsum panels until installation areas are enclosed and conditioned.
- C. Do not install panels that are wet, moisture damaged, and mold damaged.
  - 1. Indications that panels are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
  - 2. Indications that panels are mold damaged include, but are not limited to, fuzzy or blotchy surface contamination and discoloration.

## **PART 2 PRODUCTS**

### **2.01 GYPSUM BOARD ASSEMBLIES**

- A. Provide completed assemblies complying with ASTM C840 and GA-216.
- B. Interior Partitions: Provide completed assemblies with the following characteristics:
  - 1. Acoustic Attenuation: STC as indicated calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.
- C. Fire Rated Assemblies: Provide completed assemblies with the following characteristics:
  - 1. Fire Rated Partitions: As indicated on drawings.
  - 2. Fire Rated Ceilings and Soffits: One (1) hour fire rating, unless otherwise noted.
  - 3. Fire-Resistance-Rated Structural Beam Framing: as indicated on drawings.
  - 4. UL Assembly Numbers: Provide construction equivalent to that listed for the particular assembly in the current UL (FRD).

### **2.02 METAL FRAMING MATERIALS**

- A. Steel Sheet: ASTM A1003/A1003M, subject to the ductility limitations indicated in AISI S220 or equivalent.
- B. Nonstructural Steel Framing for Application of Gypsum Board: See Section 09 22 16.

### **2.03 BOARD MATERIALS**

- A. Manufacturers - Gypsum-Based Board:
  - 1. American Gypsum Company: [www.americangypsum.com](http://www.americangypsum.com).
  - 2. Georgia-Pacific Gypsum: [www.gpgypsum.com](http://www.gpgypsum.com).
  - 3. National Gypsum Company: [www.nationalgypsum.com/#sle](http://www.nationalgypsum.com/#sle).
  - 4. USG Corporation: [www.usg.com](http://www.usg.com).
  - 5. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
  - 1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
  - 2. Glass mat faced gypsum panels, as defined in ASTM C1658/C1658M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
  - 3. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
    - a. Mold-resistant board is required whenever board is being installed before the building is enclosed and conditioned.
    - b. Mold resistant board is required at all wet locations and as noted on drawings.
  - 4. At Assemblies Indicated with Fire-Resistance Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X board, UL or WH listed.
  - 5. Thickness:
    - a. Vertical Surfaces: 5/8 inch.
    - b. Ceilings: 5/8 inch.
    - c. Multi-Layer Assemblies: Thicknesses as indicated on drawings.
  - 6. Long Edges: Tapered.
- C. Backing Board For Wet Areas:

1. Application: Surfaces behind tile in wet areas including tub and shower surrounds and shower ceilings.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. ANSI Cement-Based Board: Non-gypsum-based; aggregated Portland cement panels with glass fiber mesh embedded in front and back surfaces complying with ANSI A118.9 or ASTM C1325.
  - a. Thickness: 1/2 inch.
4. ASTM Cement-Based Board: Non-gypsum-based, cementitious board complying with ASTM C1288.
  - a. Thickness: 1/2 inch.
- D. Bullet Resistant Sheathing and Wallboard: Woven roving, multi-ply, ballistic grade fiberglass cloth with thermoset polyester resin; comply with UL 752 Level 4.
  1. Thickness: 1-3/16 inch.
  2. Ammunition Tested: .30 caliber rifle lead core soft point 180 grain, 2540 fps, 1 shot.
  3. Miscellaneous:
    - a. Provide components complete with adhesive, fasteners, and other devices required for complete assembly.
    - b. Bullet resistance of joints: equal to that of the panel.
  4. Products:
    - a. Basis of Design: ArmorTEX, O.F. 400, Opaque Fiberglass.
    - b. ArmorCore by Waco Composites; Bullet Resistant Fiberglass Panels: [www.armorcore.com/#sle](http://www.armorcore.com/#sle).
    - c. Bulldog Direct Protective Systems, Inc.
    - d. Total Security Solutions.
    - e. Substitutions: See Section 01 60 00 - Product Requirements.
- E. Exterior Sheathing Board: Sizes to minimize joints in place; ends square cut.
  1. Application: Exterior sheathing, unless otherwise indicated.
  2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
  3. Fungal Resistance: No fungal growth when tested in accordance with ASTM G21.
  4. Glass Mat Faced Sheathing: Glass mat faced gypsum substrate as defined in ASTM C1177/C1177M.
  5. Core Type: Type X, as indicated.
  6. Type X Thickness: 5/8 inch.
  7. Edges: Square.

#### **2.04 GYPSUM BOARD ACCESSORIES**

- A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced. Thickness: as indicated on drawings.
- B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.
- C. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel, unless noted otherwise.
  1. Rigid Corner Beads: Low profile, for 90 degree outside corners.
  2. Wall Mounted Deflection Beads: Flexible gasket and bead with 1-1/8 inch flange.
  3. Expansion Joints:
    - a. Type: V-shaped PVC with tear away fins.
- D. Joint Materials: ASTM C475/C475M and as recommended by gypsum board manufacturer for project conditions.
  1. Fiberglass Tape: 2 inch wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
  2. Paper Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.

3. Joint Compound: Drying type, vinyl-based, ready-mixed or field-mixed.
4. Joint Compound: Setting type, field-mixed.
- E. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inches in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion-resistant.
- F. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch in Thickness: ASTM C954; steel drill screws, corrosion-resistant.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that project conditions are appropriate for work of this section to commence.

#### **3.02 ACOUSTIC ACCESSORIES INSTALLATION**

- A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.
- B. Sound Isolation Tape: Apply to vertical studs and top and bottom tracks/runners in accordance with manufacturer's instructions.
- C. Acoustic Sealant: Install in accordance with manufacturer's instructions.

#### **3.03 BOARD INSTALLATION**

- A. Comply with ASTM C840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Fire-Resistance-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
- C. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
- D. Cementitious Backing Board: Install over steel framing members and plywood substrate where indicated, in accordance with ANSI A108.11 and manufacturer's instructions.
- E. Installation on Metal Framing: Use screws for attachment of gypsum board.
- F. Bullet Resistant Sheathing and Wallboard:
  1. Install bullet-resistant sheathing according to manufacturer's written recommendations and with manufacturer-approved fasteners.
  2. Cover all joints between boards with a 4-inch strip of the same thickness, material as the boards, centered on the joint.

#### **3.04 INSTALLATION OF TRIM AND ACCESSORIES**

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
  1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
- B. Corner Beads: Install at external corners, using longest practical lengths.
- C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

#### **3.05 JOINT TREATMENT**

- A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, embed and finish with setting type joint compound.
- B. Paper Faced Gypsum Board: Use paper joint tape, embed with drying type joint compound and finish with drying type joint compound.
- C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
  1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
  2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.

- D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
  - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.
  - 2. Taping, filling, and sanding are not required at surfaces behind adhesive applied ceramic tile and fixed cabinetry.
  - 3. Taping, filling, and sanding are not required at base layer of double-layer applications.

**3.06 TOLERANCES**

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

**END OF SECTION 09 21 16**

**SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Metal partition, ceiling, and soffit framing.
- B. Framing accessories.

**1.02 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings:
  - 1. Indicate prefabricated work, component details, stud layout, framed openings, anchorage to structure, acoustic details, type and location of fasteners, accessories, and items of other related work.
  - 2. Describe method for securing studs to tracks, splicing, and for blocking and reinforcement of framing connections.
- C. Product Data: Provide data describing framing member materials and finish, product criteria, load charts, and limitations.
- D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

**1.03 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience and approved by manufacturer.

**PART 2 PRODUCTS****2.01 FRAMING MATERIALS**

- A. Fire Rated Assemblies: Comply with applicable code and as indicated on drawings.
- B. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf.
  - 1. Studs: C shaped with flat or formed webs.
  - 2. Runners: U shaped, sized to match studs.
  - 3. Ceiling Channels: C shaped.
- C. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws, and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
  - 1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI S100.
  - 2. Material: ASTM A653/A653M steel sheet, SS Grade 50, with G60/Z180 hot-dipped galvanized coating.
  - 3. Provide components UL-listed for use in UL-listed fire-resistance-rated head of partition joint systems indicated on drawings.
- D. Non-Loadbearing Framing Accessories:
  - 1. Ceiling Hangers: Type and size as specified in ASTM C754 for spacing required.
  - 2. Partial Height Wall Framing Support: Provides stud reinforcement and anchored connection to floor.
  - 3. Framing Connectors: ASTM A653/A653M G90 galvanized steel clips; secures cold rolled channel to wall studs for lateral bracing.
  - 4. Fasteners: ASTM C1002 self-piercing tapping screws.
  - 5. Anchorage Devices: Powder actuated.



## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that rough-in utilities are in proper location.

### **3.02 INSTALLATION OF STUD FRAMING**

- A. Extend partition framing to structure in all locations.
- B. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- C. Align and secure top and bottom runners at 24 inches on center.
- D. At partitions indicated with an acoustic rating:
  - 1. Provide components and install as required to produce STC rating of \_\_\_\_, based on published tests by manufacturer conducted in accordance with ASTM E90 with STC rating calculated in accordance with ASTM E413.
  - 2. Place two beads of acoustic sealant between runners and substrate, studs and adjacent construction.
  - 3. Place one bead of acoustic sealant between studs and adjacent vertical surfaces.
- E. Fit runners under and above openings; secure intermediate studs to same spacing as wall studs.
- F. Install studs vertically at spacing indicated on drawings.
- G. Align stud web openings horizontally.
- H. Stud splicing is not permissible.
- I. Fabricate corners using a minimum of three studs.
- J. Install double studs at wall openings, door and window jambs, not more than 2 inches from each side of openings.
- K. Coordinate erection of studs with requirements of door frames; install supports and attachments.
- L. Coordinate installation of bucks, anchors, and blocking with electrical, mechanical, and other work to be placed within or behind stud framing.
- M. Blocking: Use wood blocking secured to studs. Provide blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware, and opening frames.

### **3.03 CEILING AND SOFFIT FRAMING**

- A. Install furring after work above ceiling or soffit is complete. Coordinate the location of hangers with other work.
- B. Install furring independent of walls, columns, and above-ceiling work.
- C. Space main carrying channels at maximum 72 inch on center, and not more than 6 inches from wall surfaces. Lap splice securely.
- D. Securely fix carrying channels to hangers to prevent turning or twisting and to transmit full load to hangers.
- E. Place furring channels perpendicular to carrying channels, not more than 2 inches from perimeter walls, and rigidly secure. Lap splices securely.

### **3.04 TOLERANCES**

- A. Maximum Variation From True Position: 1/8 inch in 10 feet.
- B. Maximum Variation From Plumb: 1/8 inch in 10 feet.

**END OF SECTION 09 22 16**

**SECTION 09 24 00 - CEMENT PLASTERING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Cement plastering.

**1.02 REFERENCE STANDARDS**

- A. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire; 2019.
- B. ASTM A924/A924M - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process; 2022a.
- C. ASTM C91/C91M - Standard Specification for Masonry Cement; 2023.
- D. ASTM C150/C150M - Standard Specification for Portland Cement; 2022.
- E. ASTM C206 - Standard Specification for Finishing Hydrated Lime; 2014 (Reapproved 2022).
- F. ASTM C897 - Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters; 2015 (Reapproved 2020).
- G. ASTM C926 - Standard Specification for Application of Portland Cement-Based Plaster; 2023a.
- H. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster; 2023.
- I. ASTM C933 - Standard Specification for Welded Wire Lath; 2023.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittals procedures.
- B. Product Data: Provide data on plaster materials and trim accessories.
- C. Installer's Qualification Statement.

**1.04 QUALITY ASSURANCE**

- A. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.
- B. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document that prescribes execution requirements.

**1.05 MOCK-UPS**

- A. Mock-Up Panel: Construct a 4 foot wide by 8 foot high sample panel of plaster work at the jobsite demonstrating installation procedures, finish texture, and color. Show each phase of installation including framing and reinforcement.

**1.06 FIELD CONDITIONS**

- A. Exterior Plaster Work: Do not apply plaster when substrate or ambient air temperature is 40 degrees F or lower, or when temperature is expected to drop below 40 degrees F within 48 hours of application.

**PART 2 PRODUCTS****2.01 CEMENT PLASTER APPLICATIONS**

- A. Solid Plaster Base: Concrete masonry.
  - 1. Plaster Type: Jobsite mixed plaster.
  - 2. Number of Coats: Three.
  - 3. First Coat: Apply to a nominal thickness of 1/4 inch.
  - 4. Second Coat: Apply to a nominal thickness of 1/4 inch.
  - 5. Leveling Coat: Apply to a nominal thickness of 1/32 to 1/16 inch.
  - 6. Finish Coat: Apply to a nominal thickness of 1/8 inch.

## 2.02 JOBSITE MIXED CEMENT PLASTER

- A. Materials:
  - 1. Portland Cement: ASTM C150/C150M, Type I.
  - 2. Masonry Cement: ASTM C91/C91M, Type N.
  - 3. Lime: ASTM C206 Type S.
  - 4. Sand: Clean, well graded, and complying with ASTM C897.
  - 5. Water: Clean, fresh, potable, and free of mineral or organic matter that could adversely affect plaster.
  - 6. Admixture: Air entrainment type.
  - 7. Plaster Mix Reinforcement: Glass fibers, chopped to 1/2 inch nominal length, and alkali resistant.
  - 8. Color as indicated on drawings and to match adjacent buildings.

## 2.03 ACCESSORIES

- A. Lath:
  - 1. Wire Size: 17 gauge, 0.453 inch.
  - 2. Galvanized: ASTM A641/A641M.
  - 3. Opening Size: 11/16 by 1-1/2 inches.
  - 4. Comply with ASTM C933.
- B. Finishing Accessories: ASTM C1063; extruded aluminum alloy (6063 T5), galvanized steel sheet ASTM A924/A924M G90, rolled zinc, or rigid plastic, unless noted otherwise.
  - 1. Types: As detailed or required for finished appearance.
- C. Reinforcing Mesh: 4.5 oz/sq yd alkali-resistant mesh.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify existing conditions are acceptable prior to starting this work.
- B. Verify masonry joints are flush and surfaces are ready to receive work of this section, and that there are no existing bituminous or water repellent coatings on masonry surfaces.
- C. Verify concrete surfaces are flat, honeycombs are filled flush, and surfaces are ready to receive work of this section, and that there are no existing bituminous, water repellent, or form release agent coatings on concrete surfaces that may be detrimental to plaster bond.
- D. Verify lath is flat, secured to substrate, and joint and surface perimeter accessories are properly in place.
- E. Verify mechanical and electrical equipment and services located within areas to receive this work have been properly tested and approved.

### 3.02 PREPARATION

- A. Dampen masonry surfaces to reduce excessive suction.
- B. Clean concrete surfaces of foreign matter using approved acid solutions, solvents, or detergents, and then rinse surfaces thoroughly with clean water.
- C. Roughen smooth concrete surfaces and apply bonding compound in accordance with manufacturer's written installation instructions.
- D. Apply dash bond coat of plaster to solid bases and moist cure for at least 24 hours before applying first coat of jobsite mixed plaster.

### 3.03 MIXING

- A. Mix only as much plaster as can be used prior to initial set.
- B. Mix materials dry, to uniform color and consistency, before adding water.
- C. Add air entrainment admixtures to each coat to provide 5 to 7 percent air entrainment.
- D. Do not retemper mixes after initial set has occurred.

- E. Protect mixtures from frost or freezing temperatures, contamination, and excessive evaporation.

#### **3.04 APPLICATION**

- A. Apply plaster in accordance with manufacturer's written instructions and comply with ASTM C926.
- B. Base Coats:
  - 1. Follow guidelines in ASTM C926 and manufacturer's written installation instructions for moist curing base coats and application of subsequent coats.
- C. Leveling Coat:
  - 1. Apply leveling coat to specified thickness.
  - 2. Fully embed reinforcing mesh in leveling coat.
- D. Finish Coats:
  - 1. Cement Plaster:
    - a. Apply with sufficient material and pressure to ensure complete coverage of base to specified thickness.
    - b. Apply desired surface texture while mix is still workable.
    - c. Float to a consistent finish.

#### **3.05 TOLERANCES**

- A. Maximum Variation from True Flatness: 1/4 inch in 10 feet.

#### **3.06 REPAIR**

- A. Patching: Remove loose, damaged or defective plaster and replace with plaster of same composition; finish to match surrounding area.

**END OF SECTION 09 24 00**

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## SECTION 09 30 00 - TILING

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Tile for floor applications.
- B. Tile for wall applications.
- C. Tile for shower receptors.
- D. Cementitious backer board as tile substrate.
- E. Stone thresholds.

#### 1.02 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by affected installers.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide manufacturers' data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.
- C. Shop Drawings: Indicate tile layout, patterns, perimeter conditions, junctions with dissimilar materials, control and expansion joints, thresholds, ceramic accessories, and setting details.
- D. Submit samples for color selection.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

#### 1.04 MOCK-UPS

- A. See Section 01 40 00 - Quality Requirements for general requirements for mock-up.
- B. Construct tile mock-up where indicated on drawings, incorporating all components specified for the location.
  - 1. Minimum size of mock-up is indicated on drawings.
  - 2. Approved mock-up may remain as part of work.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

#### 1.06 FIELD CONDITIONS

- A. Maintain ambient and substrate temperature above 50 degrees F and below 100 degrees F during installation and curing of setting materials.

### PART 2 PRODUCTS

#### 2.01 TILE

- A. Manufacturers: Basis of Design as noted on drawings.
  - 1. American Olean Corporation: [www.americanolean.com/#sle](http://www.americanolean.com/#sle).
  - 2. Ceramics Technics, LTD.
  - 3. Interceramic Tile Company.
  - 4. Metropolitan Ceramics.
  - 5. United States Ceramics.
- B. Ceramic Mosaic Tile: ANSI A137.1 standard grade.
  - 1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
  - 2. Size: 1 by 1 inch, nominal.
  - 3. Thickness: 5/16 inch.
  - 4. Edges: Cushioned.
  - 5. Surface Finish: Unglazed.

6. Color(s): To be selected by Architect from manufacturer's full range.
- C. Porcelain Tile (wall tile): ANSI A137.1 standard grade.
  1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
  2. Size: As indicated on drawings.
  3. Thickness: 3/8 inch.
  4. Edges: Cushioned.
  5. Color(s): To be selected by Architect from manufacturer's full range.
- D. Porcelain Tile (floor tile): ANSI A137.1 standard grade.
  1. Moisture Absorption: 0 to 0.5 percent as tested in accordance with ASTM C373.
  2. Size: As indicated on drawings.
  3. Thickness: 3/8 inch.
  4. Edges: Cushioned.
  5. Color(s): To be selected by Architect from manufacturer's full range.

## 2.02 TRIM AND ACCESSORIES

- A. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
  1. Applications:
    - a. Open edges of wall tile.
    - b. Inside and outside wall corners.
    - c. Transition between floor finishes of different heights.
    - d. Borders and other trim as indicated on drawings.
  2. Products:
    - a. Schluter-Systems; Schiene: [www.schluter.com/#sle](http://www.schluter.com/#sle).
    - b. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Thresholds: Marble, As selected by Architect from full range, honed finish; 4 inches wide by full width of wall or frame opening; thickness to fit application; beveled one long edge with radiused corners on top side; without holes, cracks, or open seams.
  1. Applications:
    - a. At doorways where tile terminates.

## 2.03 SETTING MATERIALS

- A. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4.
  1. Applications: Use this type of bond coat where indicated, and where no other type of bond coat is indicated.
  2. Products:
    - a. Laticrete International, Inc.
    - b. MAPEI Corporation.
    - c. TEC, an H.B. Fuller Construction Products Brand: [www.tecspecialty.com/#sle](http://www.tecspecialty.com/#sle).
- B. Mortar Bed Materials: Pre-packaged mix of Portland cement, sand, latex additive, and water.

## 2.04 GROUTS

- A. Walls: High Performance Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
  1. Applications: Use this type of grout where indicated .
  2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
  3. Color(s): As selected by Architect from manufacturer's full line.
  4. Products:
    - a. LATICRETE International, Inc: [www.laticrete.com/#sle](http://www.laticrete.com/#sle).
    - b. Merkrete, by Parex USA, Inc: [www.merkrete.com/#sle](http://www.merkrete.com/#sle).
    - c. TEC, an H.B. Fuller Construction Products Brand: [www.tecspecialty.com/#sle](http://www.tecspecialty.com/#sle).

- B. Epoxy Grout: ANSI A118.3 chemical resistant and water-cleanable epoxy grout.
  - 1. Applications: Floors.
  - 2. Color(s): As selected by Architect from manufacturer's full line.
  - 3. Products:
    - a. ARDEX Engineered Cements: [www.ardexamericas.com/#sle](http://www.ardexamericas.com/#sle).
    - b. Custom Building Products: [www.custombuildingproducts.com/#sle](http://www.custombuildingproducts.com/#sle).
    - c. LATICRETE International, Inc: [www.laticrete.com/#sle](http://www.laticrete.com/#sle).
    - d. Merkrete, by Parex USA, Inc: [www.merkrete.com/#sle](http://www.merkrete.com/#sle).

## 2.05 ACCESSORY MATERIALS

- A. Waterproofing Membrane: Specifically designed for bonding to cementitious substrate under thick mortar bed or thin-set tile; complying with ANSI A118.10.
  - 1. Crack Resistance: No failure at 1/16 inch gap, minimum; comply with ANSI A118.12.
  - 2. Fluid or Trowel Applied Type:
    - a. Material: Synthetic rubber or Acrylic.
    - b. Thickness: 25 mils, minimum, dry film thickness.
    - c. Products:
      - 1) ARDEX Engineered Cements: [www.ardexamericas.com/#sle](http://www.ardexamericas.com/#sle).
      - 2) Custom Building Products; RedGard Crack Prevention and Waterproofing Membrane: [www.custombuildingproducts.com/#sle](http://www.custombuildingproducts.com/#sle).
      - 3) LATICRETE International, Inc: [www.laticrete.com/#sle](http://www.laticrete.com/#sle).
      - 4) Mapei Corporation: [www.mapei.com/#sle](http://www.mapei.com/#sle).
      - 5) Substitutions: See Section 01 60 00 - Product Requirements.
- B. Backer Board: Cementitious type complying with ANSI A118.9; high density, glass fiber reinforced, 7/16 inch thick; 2 inch wide coated glass fiber tape for joints and corners.
- C. Mesh Tape: 2 inch wide self-adhesive fiberglass mesh tape.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that subfloor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.
- C. Verify that subfloor surfaces are dust free and free of substances that could impair bonding of setting materials to subfloor surfaces.
- D. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.
  - 1. Obtain instructions if test results are not within limits recommended by tiling material manufacturer and setting material manufacturer.
- E. Verify that required floor-mounted utilities are in correct location.

### 3.02 PREPARATION

- A. Protect surrounding work from damage.
- B. Vacuum clean surfaces and damp clean.
- C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
- D. Install backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of setting material to a feather edge.



**3.03 INSTALLATION - GENERAL**

- A. Install tile and thresholds and grout in accordance with applicable requirements of ANSI A108.1a through ANSI A108.13, manufacturer's instructions, and TCNA (HB) recommendations.
- B. Request tile pattern. Do not interrupt tile pattern through openings.
- C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
- D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
- E. Form internal angles square and external angles square.
- F. Install non-ceramic trim in accordance with manufacturer's instructions.
- G. Install thresholds where indicated.
- H. Sound tile after setting. Replace hollow sounding units.
- I. Keep control and expansion joints free of mortar, grout, and adhesive.
- J. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
- K. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.
- L. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

**3.04 INSTALLATION - FLOORS - THIN-SET METHODS**

- A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.

**3.05 INSTALLATION - SHOWERS AND BATHTUB WALLS**

- A. At tiled shower receptors install in accordance with TCNA (HB) Method B415, mortar bed floor, and W244, thin-set over cementitious backer unit walls.
- B. Grout with standard grout as specified above.

**3.06 INSTALLATION - WALL TILE**

- A. Over cementitious backer units on studs, install in accordance with TCNA (HB) Method W244.

**3.07 CLEANING**

- A. Clean tile and grout surfaces.

**3.08 PROTECTION**

- A. Do not permit traffic over finished floor surface for 4 days after installation.

**END OF SECTION 09 30 00**

## SECTION 09 51 00 - ACOUSTICAL CEILINGS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Suspended metal grid ceiling system.
- B. Acoustical units.

#### 1.02 ADMINISTRATIVE REQUIREMENTS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate grid layout and related dimensioning and mechanical and electrical items installed in the ceiling.
- C. Product Data: Provide data on suspension system components and acoustical units.
- D. Samples: Submit two full size samples illustrating material and finish of acoustical units.
- E. Samples: Submit two samples each of suspension system main runner, cross runner, and perimeter molding.

#### 1.04 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Acoustic Tiles/Panels:
  - 1. Armstrong World Industries, Inc: [www.armstrong.com](http://www.armstrong.com).
  - 2. CertainTeed Corporation: [www.certainteed.com](http://www.certainteed.com).
  - 3. USG: [www.usg.com](http://www.usg.com).
- B. Suspension Systems:
  - 1. Same as for acoustical units.

#### 2.02 ACOUSTICAL UNITS

- A. Acoustical Tile : Painted mineral fiber, Type III, with the following characteristics:
  - 1. Basis of Design Product: Armstrong Ultima High NRC or approved equal.
  - 2. Size: 24 by 24 inches.
  - 3. NRC: .85, determined in accordance with ASTM E1264.
  - 4. Ceiling Attenuation Class (CAC): 35, determined in accordance with ASTM E1264.
  - 5. Edge: Beveled tegular.
  - 6. Surface Color: White.

#### 2.03 SUSPENSION SYSTEM(S)

- A. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with perimeter moldings, hold down clips, stabilizer bars, clips, and splices as required.
- B. Basis-of-Design Product: Silhouette 1/8" reveal or approved equal.
- C. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
  - 1. Finish: White painted.

**2.04 ACCESSORIES**

- A. Support Channels and Hangers: Primed steel; size and type to suit application and ceiling system flatness requirement specified.
- B. Hanger Wire: 12 gauge, 0.08 inch galvanized steel wire.
- C. Perimeter Moldings: Same metal and finish as grid.
- D. Touch-up Paint: Type and color to match acoustical and grid units.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

**3.02 INSTALLATION - SUSPENSION SYSTEM**

- A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Lay out system to a balanced grid design with edge units no less than 50 percent of acoustical unit size.
- D. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
  - 1. Use longest practical lengths.
- E. Suspension System, Non-Seismic: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- I. Do not eccentrically load system or induce rotation of runners.

**3.03 INSTALLATION - ACOUSTICAL UNITS**

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- E. Cutting Acoustical Units:
  - 1. Make field cut edges of same profile as factory edges.

**3.04 TOLERANCES**

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

**END OF SECTION 09 51 00**

**SECTION 09 54 23 - LINEAR METAL CEILINGS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Linear metal ceilings.
- B. Suspended metal support system and perimeter trim.

**1.02 REFERENCE STANDARDS**

- A. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels; 2019.
- B. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions; 2022.

**1.03 DESIGN REQUIREMENTS**

- A. Design components to ensure light fixtures and installed accessories will not induce eccentric loads. Where components may induce rotation of ceiling system components, provide stabilizing reinforcement.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination: Coordinate work of this section with installation of mechanical and electrical components and with other construction activities affected by work of this section.
- B. Preinstallation Meeting: Convene one week before starting work of this section.
- C. Sequencing: Supply hanger clips during steel deck erection. Supply additional hangers and inserts as required.

**1.05 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Furnish for component profiles, materials, and perimeter and integral trim.
- C. Shop Drawings: Indicate reflected ceiling plan, location of mechanical and electrical components, and details of junction with dissimilar materials.
- D. Samples: Submit two samples illustrating color and finish of exposed to view components.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Protect factory-finished products from damage to appearance by storing products in manufacturer's unopened factory packaging in dry storage area.

**1.07 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide five year manufacturer warranty; include coverage for corrosion resistance and discoloration of surface finish.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Linear Metal Ceilings:
  - 1. Armstrong World Industries, Inc; Metal Works: [www.armstrongceilings.com/#sle](http://www.armstrongceilings.com/#sle).
  - 2. ATAS International, Inc: [www.atas.com/#sle](http://www.atas.com/#sle).
  - 3. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 LINEAR METAL CEILINGS**

- A. Linear Metal Ceiling System: Panels, suspension members, trim, and accessories as required to provide a complete system.
- B. Performance Requirements:

1. Design to support imposed loads of indicated items without eccentric loading of supports.
2. Design for maximum deflection of 1/360 of span.
3. Systems Located Outside Building Envelope:
  - a. Accommodate wind and suction loads and wind uplift without damage in accordance with applicable code.

### 2.03 COMPONENTS

- A. Linear Metal Panels:
  1. Type: Linear panel (solid) with reveals; snap-in installation.
    - a. Size and Configuration: 6" wide and As indicated on drawings.
    - b. Panel Profile: Channel shaped with beveled edges.
    - c. Spacing: 1 inch reveal between panels.
- B. Edge Molding, Expansion Joints, and Splices: Same material, thickness, and finish as linear panels.
- C. End Caps: Formed metal; same color and finish as sight-exposed surfaces of linear panels.
- D. Accessories: Stabilizer bars as required for suspended grid system; sight-exposed surfaces same color and finish as sight-exposed surfaces of linear panels.
- E. Suspension Members: Formed steel sections, with integral attachment points; galvanized finish; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- F. Suspension Wire: Size and type as required for application, seismic requirements, and ceiling system flatness requirement specified.
- G. Subgirt Members: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with G90/Z275 coating; formed to resist imposed loads and to provide attachment for linear ceiling and accessories.
- H. Touch-up Paint For Concealed Items: Zinc rich type.

### 2.04 FABRICATION

- A. Shop cut linear panels to accommodate mechanical and electrical items.
- B. Factory-form internal and external corners of same material, thickness, finish, and profile to match exposed linear panels ; back brace internal corners.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.
- C. Verify that required utilities are available, in proper location, and ready for use.
- D. Verify that field measurements are as indicated.

### 3.02 INSTALLATION

- A. Suspension Components:
  1. Install after above-ceiling work is complete in accordance with manufacturer's instructions, ASTM C636/C636M, and ASTM E580/E580M.
  2. Hang carrying members independent of walls, columns, ducts, light fixtures, pipe, and conduit; where carrying members are spliced, avoid visible displacement of face panels with adjacent panels.
  3. Where ducts or other equipment prevent regular spacing of hangers, reinforce nearest adjacent hangers to span the required distance.
- B. Linear Metal Ceiling:
  1. Install linear panels and other system components in accordance with manufacturer's instructions.
  2. Set exterior end joints with 1/16 inch gap for expansion and contraction.

3. Field miter corners at changes in panel direction.

**3.03 CLEANING**

- A. Clean polished surfaces.
- B. Replace damaged or abraded components.

**END OF SECTION 09 54 23**

**SECTION 09 65 00 - RESILIENT FLOORING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Resilient tile flooring.
- B. Static control resilient tile flooring.
- C. Resilient base.
- D. Installation accessories.

**1.02 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
- C. Shop Drawings: Indicate floor patterns.
- D. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.
- E. Verification Samples: Submit two samples, illustrating color and pattern for each resilient flooring product specified.
- F. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- G. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of subfloor is acceptable.
- H. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning, stripping, and re-waxing.

**1.03 DELIVERY, STORAGE, AND HANDLING**

- A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
- B. Store all materials off of the floor in an acclimatized, weather-tight space.
- C. Maintain temperature in storage area between 55 degrees F and 90 degrees F.
- D. Protect roll materials from damage by storing on end.

**1.04 FIELD CONDITIONS**

- A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F.

**PART 2 PRODUCTS****2.01 TILE FLOORING**

- A. Luxury Vinyl Tile: Printed film type, with transparent or translucent wear layer.
  - 1. Basis of Design: As indicated on drawings.
  - 2. Manufacturers:
    - a. Armstrong World Industries.
    - b. Mohawk Flooring.
    - c. Shaw Floors.
    - d. Tandus Centiva.
  - 3. Minimum Requirements: Comply with ASTM F1700, of Class corresponding to type specified.
  - 4. Critical Radiant Flux (CRF): Minimum 0.45 watt per square centimeter, when tested in accordance with ASTM E648 or NFPA 253.
  - 5. Mold and Microbial Resistance: Highly resistant when tested in accordance with ASTM D6329; certified in accordance with UL 2824.

6. Plank Tile Size: As indicated on drawings.
  7. Wear Layer Thickness: 2 mil.
  8. Total Thickness: 4.5 mm (0.177 in).
  9. Color: To be selected by Architect from manufacturer's full range.
- B. Static Control Tile: Homogeneous; color and pattern throughout thickness.
1. Manufacturers:
    - a. Forbo Industries, Inc.
    - b. Roppe Corporation; Roppe Holding Company.
    - c. Johnsonite; a Tarkett Company.
  2. Minimum Requirements: Vinyl composition tile complying with ASTM F1066, Class 2.
  3. Electrical Resistance:
    - a. Dissipative Tile: Resistance between 1.0 megohms and 1000 megohms as tested in accordance with ASTM F150.
  4. Tile Size: 24 by 24 inch.
  5. Total Thickness: 0.125 inch.
  6. Color: As indicated on drawings.

## 2.02 RESILIENT BASE

- A. Resilient Base: as schedule on drawings.
1. Manufacturers:
    - a. Burke Flooring: [www.burkeflooring.com](http://www.burkeflooring.com).
    - b. Johnsonite, a Tarkett Company: [www.johnsonite.com](http://www.johnsonite.com).
    - c. Roppe Corp: [www.roppe.com](http://www.roppe.com).
    - d. Substitutions: See Section 01 60 00 - Product Requirements.
  2. Accessories: Premolded external corners.

## 2.03 ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
- B. Primers, Adhesives, and Seam Sealer: Waterproof; types recommended by flooring manufacturer.
1. VOC Content Limits:
    - a. Vinyl Composition Tile Adhesives: 50 g/L or less.
    - b. Rubber Floor Adhesives: 60 g/L or less.
  2. Adhesives shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- C. Copper Grounding Strips: Type and size as recommended by static control flooring manufacturer.
- D. Floor Polish for Static Control Flooring: Fluid-applied polish, intended to protect electrical properties of flooring, as recommended by static control flooring manufacturer.
- E. Filler for Coved Base: Plastic.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.
- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.



- C. Cementitious Subfloor Surfaces: Verify that substrates are ready for resilient flooring installation by testing for moisture and alkalinity (pH).
  - 1. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.
- D. Verify that required floor-mounted utilities are in correct location.

### 3.02 PREPARATION

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor low spots, cracks, joints, holes, and other defects with subfloor filler to achieve smooth, flat, hard surface.
- C. Prohibit traffic until filler is fully cured.
- D. Clean substrate.

### 3.03 INSTALLATION - GENERAL

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install in accordance with manufacturer's written instructions.
- C. Adhesive-Applied Installation:
  - 1. Spread only enough adhesive to permit installation of materials before initial set.
  - 2. Place copper grounding strip in conductive adhesive and apply additional adhesive to top side of strip before installing static control flooring. Allow strip to extend beyond flooring in accordance with static control flooring manufacturer's instructions. Refer to Section 26 05 26 for grounding and bonding to building grounding system.
  - 3. Fit joints and butt seams tightly.
  - 4. Set flooring in place, press with heavy roller to attain full adhesion.
- D. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
- E. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
  - 1. Resilient Strips: Attach to substrate using adhesive.
- F. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.
- G. Spread only enough adhesive to permit installation of materials before initial set.
- H. Place copper grounding strip in conductive adhesive and apply additional adhesive to top side of strip before installing static control flooring. Allow strip to extend beyond flooring in accordance with static control flooring manufacturer's instructions. Refer to Section 26 05 26 for grounding and bonding to building grounding system.
- I. Fit joints and butt seams tightly.
- J. Set flooring in place, press with heavy roller to attain full adhesion.
- K. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
- L. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
  - 1. Resilient Strips: Attach to substrate using adhesive.
- M. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

### 3.04 INSTALLATION - TILE FLOORING

- A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless otherwise indicated in manufacturer's installation instructions.
- B. Lay flooring with joints and seams parallel to building lines to produce symmetrical pattern.
- C. Install plank tile with a random offset of at least 6 inches from adjacent rows.

**3.05 INSTALLATION - RESILIENT BASE**

- A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches between joints.
- B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tightly to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

**3.06 CLEANING**

- A. Remove excess adhesive from floor, base, and wall surfaces without damage.
- B. Clean in accordance with manufacturer's written instructions.

**3.07 PROTECTION**

- A. Prohibit traffic on resilient flooring for 48 hours after installation.

**END OF SECTION 09 65 00**

**SECTION 09 67 00 - FLUID-APPLIED FLOORING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Fluid-applied flooring and base.

**1.02 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available; and \_\_\_\_\_.
- C. Samples: Submit two samples, \_\_\_by\_\_\_ inch in size illustrating color and pattern for each floor material for each color specified.
- D. Manufacturer's Installation Instructions: Indicate special procedures.

**1.03 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the work of this section.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Store resin materials in a dry, secure area.
- B. Store materials for three days prior to installation in area of installation to achieve temperature stability.

**1.05 FIELD CONDITIONS**

- A. Maintain minimum temperature in storage area of 55 degrees F.
- B. Store materials in area of installation for minimum period of 24 hours prior to installation.
- C. Maintain ambient temperature required by manufacturer 72 hours prior to, during, and 24 hours after installation of materials.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Fluid-Applied Flooring:
  - 1. Elite Crete Systems; \_\_\_\_: [www.elitecrete.com/#sle](http://www.elitecrete.com/#sle).
  - 2. Sika Corporation; \_\_\_\_: [www.sikafloorusa.com/#sle](http://www.sikafloorusa.com/#sle).
  - 3. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 FLUID-APPLIED FLOORING SYSTEMS**

- A. Fluid-Applied Flooring Type \_\_\_\_: Epoxy base coat(s), with broadcast aggregate.
  - 1. Aggregate: Quartz granules.
  - 2. Top Coat: Polyurethane.
  - 3. System Thickness: 1/8 inch, nominal, when dry.
  - 4. Texture: Smooth.
  - 5. Color: As selected by Architect.

**2.03 ACCESSORIES**

- A. Base Caps: Zinc with projecting base of 1/8 inch; \_\_\_\_\_ color.
- B. Cant Strips: Molded of flooring resin material.
- C. Subfloor Filler: Type recommended by fluid-applied flooring manufacturer.
- D. Primer: Type recommended by fluid-applied flooring manufacturer.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive flooring.

- B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive flooring.
- C. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of materials to sub-floor surfaces.
- D. Verify that concrete sub-floor surfaces are ready for flooring installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by flooring materials manufacturer.
- E. Verify that required floor-mounted utilities are in correct location.

**3.02 PREPARATION**

- A. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with sub-floor filler.
- B. Prepare concrete surfaces according to ICRI 310.2R, \_\_\_\_\_.
- C. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Grind irregularities above the surface level. Prohibit traffic until filler is cured.
- D. Vacuum clean substrate.

**3.03 INSTALLATION - ACCESSORIES**

- A. Install cant strips at base of walls where flooring is to be extended up wall as base.
- B. Install terminating cap strip at top of base; attach securely to wall substrate.

**3.04 INSTALLATION - FLOORING**

- A. Apply in accordance with manufacturer's instructions.
- B. Apply each coat to minimum thickness indicated.
- C. Finish to smooth level surface.
- D. Cove at vertical surfaces.

**3.05 PROTECTION**

- A. Prohibit traffic on floor finish for 48 hours after installation.
- B. Barricade area to protect flooring until fully cured.

**END OF SECTION 09 67 00**

## SECTION 09 68 13 - TILE CARPETING

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Carpet tile, Fully Adhered

#### 1.02 RELATED REQUIREMENTS

- A. Section 03 30 00 - Cast-in-Place Concrete: Restrictions on curing compounds for concrete slabs and floors to receive adhesive-applied flooring.

#### 1.03 REFERENCE STANDARDS

- A. ASTM D2859 - Standard Test Method for Ignition Characteristics of Finished Textile Floor Covering Materials; 2016 (Reapproved 2021).

#### 1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- C. Shop Drawings: Indicate layout of joints.
- D. Samples: Submit two carpet tiles illustrating color and pattern design for each carpet color selected.
- E. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and method of installation.
- F. Concrete Subfloor Test Report: Submit a copy of the moisture and alkalinity (pH) test reports.
- G. Operation and Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

#### 1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing specified carpet tile with minimum three years documented experience.
- B. Installer Qualifications: Company specializing in installing carpet tile with minimum three years documented experience and approved by carpet tile manufacturer.

#### 1.06 FIELD CONDITIONS

- A. Store materials in area of installation for minimum period of 24 hours prior to installation.

### PART 2 PRODUCTS

#### 2.01 MANUFACTURERS

- A. Tile Carpeting:
  - 1. Mannington Mills, Inc.
  - 2. Shaw Contract Group; a Berkshire Hathaway Company.
  - 3. Interface, Inc: [www.interfaceinc.com](http://www.interfaceinc.com).
  - 4. Substitutions: See Section 01 60 00 - Product Requirements.

#### 2.02 MATERIALS

- A. Tile Carpeting:
  - 1. Basis-of-Design Product: Common Theme Collection by Interface, Alternates will be reviewed on an "or equal" basis.
  - 2. Tile Size: As indicated on drawings.
  - 3. Color: As indicated on drawings. .
  - 4. Surface Flammability Ignition: Pass ASTM D2859 (the "pill test").
  - 5. Average Density: 8165 oz/sq yd.

**2.03 ACCESSORIES**

- A. Subfloor Filler: White premix latex; type recommended by flooring material manufacturer.
- B. Edge Strips: Embossed aluminum, as selected by owner from standard selection color.
- C. Adhesives:
  - 1. Compatible with materials being adhered; maximum VOC content of 50 g/L; CRI (GLP) certified; in lieu of labeled product, independent test report showing compliance is acceptable.
- D. Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive carpet tile.
- B. Cementitious Subfloor Surfaces: Verify that substrates are ready for flooring installation by testing for moisture and alkalinity (pH).
  - 1. Test as Follows:
  - 2. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.
- C. Verify that required floor-mounted utilities are in correct location.

**3.02 PREPARATION**

- A. Prepare floor substrates as recommended by flooring and adhesive manufacturers.
- B. Remove subfloor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with subfloor filler.
- C. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.
- D. Vacuum clean substrate.

**3.03 INSTALLATION**

- A. Starting installation constitutes acceptance of subfloor conditions.
- B. Install carpet tile in accordance with manufacturer's instructions.
- C. Blend carpet from different cartons to ensure minimal variation in color match.
- D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
- E. Lay carpet tile in square pattern, with pile direction alternating to next unit, set parallel to building lines.
- F. Fully adhere carpet tile to substrate.
- G. Trim carpet tile neatly at walls and around interruptions.
- H. Complete installation of edge strips, concealing exposed edges.

**3.04 CLEANING**

- A. Remove excess adhesive without damage, from floor, base, and wall surfaces.
- B. Clean and vacuum carpet surfaces.

**END OF SECTION 09 68 13**

**SECTION 09 84 30 - SOUND-ABSORBING WALL AND CEILING UNITS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Sound-absorbing panels.

**1.02 REFERENCE STANDARDS**

- A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's printed data sheets for products specified.
- C. Shop Drawings: Fabrication and installation details, panel layout, fabric orientation, and wood grain orientation.
- D. Selection Samples: Manufacturer's color charts for fabric covering, indicating full range of fabrics, colors, and patterns available.
- E. Verification Samples: Fabricated samples of each type of panel specified; 12 by 12 inch, showing construction, edge details, and fabric covering.
- F. Test Reports: Certified test data from an independent test agency verifying that panels meet specified requirements for acoustical and fire performance.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Protect acoustical units from moisture during shipment, storage, and handling. Deliver in factory-wrapped bundles; do not open bundles until units are needed for installation.
- B. Store units flat, in dry, well-ventilated space; do not stand on end.
- C. Protect edges from damage.

**PART 2 PRODUCTS****2.01 FABRIC-COVERED SOUND-ABSORBING UNITS**

- A. General:
  - 1. Prefinished, factory assembled fabric-covered panels.
  - 2. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
- B. Fabric-Covered Acoustical Panels for Walls:
  - 1. Panel Thickness: As indicated on drawings.
  - 2. Fabric: 100% Polypropylene.
  - 3. Color: As indicated.
  - 4. Mounting Method: Back-mounted with mechanical fasteners.

**2.02 FABRICATION**

- A. Fabric Wrapped, General: Fabricate panels to sizes and configurations as indicated, with fabric facing installed without sagging, wrinkles, blisters, or visible seams.

**2.03 ACCESSORIES**

- A. Back-Mounting Accessories: Manufacturer's standard accessories for concealed support, designed to allow panel removal, and as follows:
  - 1. Two-part clip and base-support bracket system; brackets designed to support full weight of panels and clips designed for lateral support, with one part mechanically attached to back of panel and the other attached to substrate.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine substrates for conditions detrimental to installation of acoustical units. Proceed with installation only after unsatisfactory conditions have been corrected.

#### **3.02 INSTALLATION**

- A. Install acoustical units in locations as indicated, following manufacturer's installation instructions.
- B. Install mounting accessories and supports in accordance with shop drawings.
- C. Align panels accurately, with edges plumb and top edges level. Scribe to fit accurately at adjoining work and penetrations.
- D. Install acoustical units to construction tolerances of plus or minus 1/16 inch for the following:
  - 1. Plumb and level.
  - 2. Flatness.
  - 3. Width of joints.

#### **3.03 CLEANING**

- A. Clean sound-absorptive panels upon completion of installation from dust and other foreign materials, following manufacturer's instructions.

#### **3.04 PROTECTION**

- A. Provide protection of installed acoustical panels until Date of Substantial Completion.
- B. Replace panels that cannot be cleaned and repaired to satisfaction of the Architect.

**END OF SECTION 09 84 30**



**SECTION 09 91 13 - EXTERIOR PAINTING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints.
- C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
  - 1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
  - 2. Exposed surfaces of steel lintels and ledge angles.
  - 3. Mechanical and Electrical:
- D. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
  - 5. Non-metallic roofing and flashing.
  - 6. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, zinc, and lead.
  - 7. Floors, unless specifically indicated.
  - 8. Ceramic and other types of tiles.
  - 9. Brick, glass unit masonry, architectural concrete, cast stone, integrally colored plaster and stucco.
  - 10. Glass.
  - 11. Concealed pipes, ducts, and conduits.

**1.02 REFERENCE STANDARDS**

- A. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.
- B. SSPC-SP 1 - Solvent Cleaning; 2015, with Editorial Revision (2016).
- C. SSPC-SP 2 - Hand Tool Cleaning; 2018.
- D. SSPC-SP 6 - Commercial Blast Cleaning; 2007.
- E. SSPC-SP 13 - Surface Preparation of Concrete; 2018.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
  - 2. MPI product number (e.g. MPI #47).
  - 3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
- C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches in size, illustrating range of colors available for each finishing product specified.
  - 1. Where sheen is specified, submit samples in only that sheen.
- D. Samples: Submit two paper chip samples, \_\_\_\_x\_\_\_\_ inch in size illustrating range of colors and textures available for each surface finishing product scheduled.

#### **1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum 5 years experience and approved by manufacturer.

#### **1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

#### **1.06 FIELD CONDITIONS**

- A. Do not apply materials when surface and ambient temperatures are outside the paint product manufacturer's temperature ranges.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply exterior paint and finishes during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

### **PART 2 PRODUCTS**

#### **2.01 MANUFACTURERS**

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.

#### **2.02 PAINTS AND FINISHES - GENERAL**

- A. Paints and Finishes: Ready-mixed, unless required to be a field-catalyzed paint.
  - 1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
  - 2. Supply each paint material in quantity required to complete entire project's work from a single production run.
  - 3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
- B. Colors: To be selected from manufacturer's full range of available colors.
  - 1. Selection to be made by Architect after award of contract.
  - 2. Extend colors to surface edges; colors may change at any edge as directed by Architect.

#### **2.03 PAINT SYSTEMS - EXTERIOR**

- A. Exterior Surfaces to be Painted: Primed Metal.
  - 1. Two top coats and one primer.
  - 2. Top Coat(s): Exterior Light industrial coating, water based; MPI #161, 163 or 164.
- B. Exterior Surfaces to be Painted, Unless Otherwise Indicated: Including concrete masonry units.
  - 1. Two top coats and one coat primer.
  - 2. Top Coat(s): Exterior Pigmented Elastomeric, Water Based; MPI #113.
    - a. Products:
      - 1) Behr Premium Elastomeric Masonry, Stucco and Brick Paint [No. 68]. (MPI #113)

- 2) PPG Paints Perma-Crete Pitt-Flex Elastomeric Coating, 4-110XI Series, Flat. (MPI #113)
  - 3) Sherwin-Williams Conflex XL Smooth. (MPI #113)
  - 4) Substitutions: Section 01 60 00 - Product Requirements.
3. Top Coat Sheen:
    - a. Satin: MPI gloss level 4; use this sheen at all locations.
  4. Primer: As recommended by top coat manufacturer for specific substrate.

## **2.04 ACCESSORY MATERIALS**

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Do not begin application of paints and finishes until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially effect proper application.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- E. Test shop-applied primer for compatibility with subsequent cover materials.

### **3.02 PREPARATION**

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- F. Concrete:
  1. Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.
  2. Clean surfaces with pressurized water. Use pressure range of 1,500 to 4,000 psi at 6 to 12 inches. Allow to dry.
  3. Prepare surface as recommended by top coat manufacturer and according to SSPC-SP 13.
- G. Masonry:
  1. Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.
  2. Prepare surface as recommended by top coat manufacturer.
  3. Clean surfaces with pressurized water. Use pressure range of 600 to 1,500 psi at 6 to 12 inches. Allow to dry.
- H. Concrete Floors and Traffic Surfaces: Remove contamination, acid etch, and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
- I. Galvanized Surfaces:

1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
  2. Prepare surface according to SSPC-SP 2.
- J. Ferrous Metal:
1. Solvent clean according to SSPC-SP 1.
  2. Remove rust, loose mill scale, and other foreign substances using using methods recommended in writing by paint manufacturer and blast cleaning according to SSPC-SP 6 "Commercial Blast Cleaning". Protect from corrosion until coated.

### **3.03 APPLICATION**

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Sand wood and metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

### **3.04 FIELD QUALITY CONTROL**

- A. See Section 01 40 00 - Quality Requirements, for general requirements for field inspection.

### **3.05 CLEANING**

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

### **3.06 PROTECTION**

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

**END OF SECTION 09 91 13**

**SECTION 09 91 23 - INTERIOR PAINTING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Surface preparation.
- B. Scope: Finish interior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated.
  - 1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
  - 2. Mechanical and Electrical:
    - a. In all areas, paint insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
    - b. Paint interior surfaces of air ducts and convector and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.
    - c. Paint dampers exposed behind louvers, grilles, and convector and baseboard cabinets to match face panels.
- C. Do Not Paint or Finish the Following Items:
  - 1. Items factory-finished unless otherwise indicated; materials and products having factory-applied primers are not considered factory finished.
  - 2. Items indicated to receive other finishes.
  - 3. Items indicated to remain unfinished.
  - 4. Fire rating labels, equipment serial number and capacity labels, bar code labels, and operating parts of equipment.
  - 5. Stainless steel, anodized aluminum, bronze, terne-coated stainless steel, and lead items.
  - 6. Floors, unless specifically indicated.
  - 7. Ceramic and other tiles.
  - 8. Brick, architectural concrete, cast stone, integrally colored plaster, and stucco.
  - 9. Glass.
  - 10. Concrete masonry units in utility, mechanical, and electrical spaces.
  - 11. Acoustical materials, unless specifically indicated.
  - 12. Concealed pipes, ducts, and conduits.
  - 13. Infrared tube heater

**1.02 SUBMITTALS**

- A. Product Data: Provide complete list of products to be used, with the following information for each:
  - 1. Manufacturer's name, product name and/or catalog number, and general product category (e.g., "alkyd enamel").
  - 2. MPI product number (e.g., MPI #47).
  - 3. Cross-reference to specified paint system products to be used in project; include description of each system.
  - 4. Manufacturer's installation instructions.
  - 5. If proposal of substitutions is allowed under submittal procedures, explanation of substitutions proposed.
- B. Samples: Submit two paper chip samples, in size illustrating range of colors and textures available for each surface finishing product scheduled.
- C. Certification: By manufacturer that paints and finishes comply with VOC limits specified.

- D. Manufacturer's Instructions: Indicate special surface preparation procedures and substrate conditions requiring special attention.
- E. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and finished surfaces, and color samples of each color and finish used.
- F. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
  - 1. Extra Paint and Finish Materials: 1 gal of each color; from the same product run, store where directed.
  - 2. Label each container with color in addition to the manufacturer's label.

### **1.03 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified approved by manufacturer.

### **1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

### **1.05 FIELD CONDITIONS**

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Do not apply materials when relative humidity exceeds 85 percent, at temperatures less than 5 degrees F above the dew point, or to damp or wet surfaces.
- D. Minimum Application Temperatures for Paints: 50 degrees F for interiors unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 fc measured mid-height at substrate surface.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURERS**

- A. Provide paints and finishes from the same manufacturer to the greatest extent possible.
  - 1. If a single manufacturer cannot provide specified products; minor exceptions will be permitted provided approval by Architect is obtained using the specified procedures for substitutions.
  - 2. Substitution of other products by the same manufacturer is preferred over substitution of products by a different manufacturer.
- B. Paints:
  - 1. Sherwin-Williams Company: [www.sherwin-williams.com/#sle](http://www.sherwin-williams.com/#sle).
  - 2. PPG Paints: [www.ppgpaints.com/#sle](http://www.ppgpaints.com/#sle).
- C. Primer Sealers: Same manufacturer as top coats.

### **2.02 PAINTS AND FINISHES - GENERAL**

- A. Paints and Finishes: Ready-mixed, unless intended to be a field-catalyzed paint.

1. Where MPI paint numbers are specified, provide products listed in Master Painters Institute Approved Product List, current edition available at [www.paintinfo.com](http://www.paintinfo.com), for specified MPI categories, except as otherwise indicated.
  2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
  3. Supply each paint material in quantity required to complete entire project's work from a single production run.
  4. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is specifically described in manufacturer's product instructions.
- B. Volatile Organic Compound (VOC) Content:
1. Provide paints and finishes that comply with the most stringent requirements specified in the following:
    - a. 40 CFR 59, Subpart D--National Volatile Organic Compound Emission Standards for Architectural Coatings.
  2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
- C. Flammability: Comply with applicable code for surface burning characteristics.
- D. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.
- E. Colors: As indicated on drawings.
1. Extend colors to surface edges; colors may change at any edge as directed by Architect.
  2. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling under which they are mounted.
  3. In utility areas, finish equipment, piping, conduit, and exposed duct work in colors according to the color coding scheme indicated.

### 2.03 PAINT SYSTEMS - INTERIOR

- A. Paint I-OP - Interior Surfaces to be Painted, Unless Otherwise Indicated: Including gypsum board.
1. Two top coats and one coat primer.
  2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138, 139, 140, or 141. (at bathroom/wet areas only)
    - a. Products: As indicated on drawings.
      - 1) Substitutions: See Section 01 60 00 - Product Requirements
  3. Top Coat(s): Institutional Low Odor/VOC Interior Latex; MPI #143, 144, 145, 146, 147, or 148.
    - a. Products: As indicated on drawings.
      - 1) Substitutions: See Section 01 60 00 - Product Requirements
  4. Top Coat Sheen:
    - a. Flat: MPI gloss level 1; use this sheen as indicated on drawings
    - b. Eggshell: MPI gloss level 3; use this sheen as indicated on drawings.
    - c. Semi-Gloss: MPI gloss level 5; use this sheen as indicated on drawings.
  5. Primer: As recommended by top coat manufacturer for specific substrate.
- B. Paint I-OP-MD-DT - Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
1. Medium duty applications include doors and door frames.
  2. Two top coats and one coat primer.
  3. Top Coat(s): Interior Light Industrial Coating, Water Based; MPI #151, 153, or 154.
    - a. Products: As indicated on drawings.

- 1) Substitutions: See Section 01 60 00 - Product Requirements
4. Top Coat Sheen: As indicated on drawings.
5. Primer: As recommended by top coat manufacturer for specific substrate.
- C. Dry Fall: Metals; exposed structure and overhead-mounted services in utilitarian spaces, including shop primed structural steel, metal fabrications, galvanized ducts, galvanized conduit, and galvanized piping.
  1. Shop primer by others.
  2. One top coat.
  3. Top Coat: Alkyd Dry Fall; MPI #55, 89, or 225.
    - a. Products: As indicated on drawings.
      - 1) Substitutions: See Section 01 60 00 - Product Requirements
  4. Top Coat Sheen:
    - a. Flat: MPI gloss level 1; use this sheen unless noted otherwise.
  5. Primer: As recommended by top coat manufacturer for specific substrate.

#### 2.04 PRIMERS

- A. Primers: Provide the following unless other primer is required or recommended by manufacturer of top coats.
  1. Interior/Exterior Latex Block Filler; MPI #4.

#### 2.05 ACCESSORY MATERIALS

- A. Accessory Materials: Provide primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials as required for final completion of painted surfaces.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Do not begin application of paints and finishes until substrates have been adequately prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. Test shop-applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums, refer to manufacturer recommendations for additional information:
  1. Gypsum Wallboard: 12 percent.
  2. Masonry, Concrete, and Concrete Masonry Units: 12 percent.
  3. Concrete Floors and Traffic Surfaces: 8 percent.

#### 3.02 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- D. Seal surfaces that might cause bleed through or staining of topcoat.
- E. Masonry:
  1. Remove efflorescence and chalk. Do not coat surfaces if moisture content, alkalinity of surfaces, or if alkalinity of mortar joints exceed that permitted in manufacturer's written instructions. Allow to dry.



2. Prepare surface as recommended by top coat manufacturer.
- F. Concrete Floors and Traffic Surfaces: Remove contamination, acid etch and rinse floors with clear water. Verify required acid-alkali balance is achieved. Allow to dry.
- G. Gypsum Board: Fill minor defects with filler compound. Spot prime defects after repair.
- H. Insulated Coverings: Remove dirt, grease, and oil from canvas and cotton.
- I. Galvanized Surfaces:
  1. Remove surface contamination and oils and wash with solvent according to SSPC-SP 1.
- J. Ferrous Metal:
  1. Solvent clean according to SSPC-SP 1.
  2. Remove rust, loose mill scale, and other foreign substances using methods recommended in writing by paint manufacturer and blast cleaning in accordance with SSPC-SP 6/NACE No.3. Protect from corrosion until coated.
- K. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

### **3.03 APPLICATION**

- A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
- B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".
- C. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- D. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- E. Apply each coat to uniform appearance in thicknesses specified by manufacturer.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

### **3.04 CLEANING**

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

### **3.05 PROTECTION**

- A. Protect finishes until completion of project.
- B. Touch-up damaged finishes after Substantial Completion.

**END OF SECTION 09 91 23**

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**SECTION 10 14 00 - SIGNAGE****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Room and door signs.

**1.02 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.
- C. Signage Schedule: Provide information sufficient to completely define each sign for fabrication, including room number, room name, other text to be applied, sign and letter sizes, fonts, and colors.
  - 1. When room numbers to appear on signs differ from those on drawings, include the drawing room number on schedule.
  - 2. When content of signs is indicated to be determined later, request such information from Owner through Architect at least 2 months prior to start of fabrication; upon request, submit preliminary schedule.
  - 3. Submit for approval by Owner through Architect prior to fabrication.
- D. Samples: Submit two samples, of size similar to that required for project, illustrating sign style, font, and method of attachment.
- E. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.
- F. Verification Samples: Submit samples showing colors specified.
- G. Manufacturer's Installation Instructions: Include installation templates and attachment devices.

**1.03 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Package signs as required to prevent damage before installation.
- B. Package room and door signs in sequential order of installation, labeled by floor or building.
- C. Store tape adhesive at normal room temperature.

**1.05 FIELD CONDITIONS**

- A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.
- B. Maintain this minimum temperature during and after installation of signs.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Flat Signs:
  - 1. APCO Graphics, Inc.
  - 2. ASI Sign Systems, Inc.
  - 3. InPro Corporation.
  - 4. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 SIGNS**

- A. Accessibility Compliance: Signs are required to comply with ADA Standards and ICC A117.1 and applicable building codes, unless otherwise indicated; in the event of conflicting requirements, comply with the most comprehensive and specific

- requirements.
- B. Room and Door Signs: Provide a sign for every doorway. Acrylic sheet with integral color (ASTM D4802, type UVF).
    - 1. Sign Type: Flat signs with applied character panel media as specified.
    - 2. Provide "tactile" signage, with letters raised minimum 1/32 inch and Grade II braille.
    - 3. Character Height: 1 inch, unless otherwise noted.
    - 4. Sign Height: As indicated on drawings.
    - 5. Color/Font: as indicated on drawings.
  - C. Modular Signs: Sign System with removable inserts for graphics and copy attached to a receiver frame system using clips, splines, or comparable method. Provide system with modular increments of height and width, permitting assembly of unit with multiple inserts of varying size.
    - 1. Size: as indicated.
    - 2. Provide tamper-resistant feature requiring special tool to change inserts.
    - 3. Backer panel: Shaped, decorative backing panel mounted behind modular signage system as selected from manufacturer's full range
    - 4. Inserts:
      - a. Module Height: As indicated.
      - b. Type: Rigid plastic for applied graphics.
      - c. Font/color: as indicated.

### **2.03 ACCESSORIES**

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
- B. Tape Adhesive: Double sided tape, permanent adhesive.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that substrate surfaces are ready to receive work.

### **3.02 INSTALLATION**

- A. General: Install in accordance with manufacturer's instructions.
  - 1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Locate signs and mount at heights indicated on drawings and in accordance with ADA Standards and ICC A117.1.
  - 3. Protect from damage until Substantial Completion; repair or replace damaged items.

**END OF SECTION 10 14 00**

## SECTION 10 14 19 - DIMENSIONAL LETTER SIGNAGE

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Dimensional letter signage.
- B. Illumination system.

#### 1.02 REFERENCE STANDARDS

- A. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- B. UL 879 - Electric Sign Components; Current Edition, Including All Revisions.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Manufacturer's product literature for each type of dimensional letter sign, indicating style, font, colors, locations, and overall dimensions of each sign.
- C. Shop Drawings:
  - 1. Include dimensions, locations, elevations, materials, text and graphic layout, and attachment details.
  - 2. Show locations of electrical service connections.
  - 3. Include diagrams for power, signal, and control wiring.
- D. Selection Samples: Where materials, colors, and finishes are not specified, submit two sets of selection charts or chips.

#### 1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Package dimensional letter signs as required to prevent damage before installation.
- B. Store under cover and elevated above grade.

#### 1.06 FIELD CONDITIONS

- A. Do not install tape adhesive when ambient temperature is lower than recommended by manufacturer.
- B. Maintain minimum ambient temperature during and after installation.

### PART 2 PRODUCTS

#### 2.01 DIMENSIONAL LETTERS

- A. Metal Letters: Metal face and side returns with translucent back cover, formed free from warp and distortion; with uniform faces, sharp corners, and precisely formed lines and profiles; internally braced for stability, to meet structural performance loading without oil-canning or other surface deformation, and for securing fasteners.
  - 1. Material: Aluminum sheet, flat.
  - 2. Thickness: Manufacturer's standard for letter size, but not less than 1/8 inch.
  - 3. Letter Height: As indicated on drawings.
  - 4. Text and Typeface:
    - a. Character Font: To be selected by owner.
  - 5. Finish: As selected by Architect from manufacturer's full range.
  - 6. Color: As selected by Architect from manufacturer's full range.
  - 7. Mounting: Concealed screws.
  - 8. Weeps: Provide weep holes to drain water at lowest part of exterior characters. Equip weeps with permanent baffles to block light leakage without inhibiting drainage.

9. Illumination System: Halo-lit reverse channel letters.
  - a. Backlighting character construction with LED lighting, including transformers, insulators, and other accessories for operability, with provisions for servicing and concealing connections to building electrical system. Use tight or sealed joint construction to prevent unintentional light leakage. Space lamps apart from each other and away from character surfaces as needed to illuminate uniformly.
  - b. Provide products that are listed and labeled as complying with UL 879, where applicable.
  - c. Power: As indicated on Drawings.

## **2.02 ACCESSORIES**

- A. Concealed Screws: Noncorroding metal; stainless steel, galvanized steel, chrome plated, or other.
- B. Electrical Components and Devices: Listed and labeled as defined in NFPA 70 by a qualified testing agency.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that substrate surfaces are ready to receive work.
- B. Verify that electrical service is correctly sized and located to accommodate dimensional letter signs.
- C. Notify Architect if conditions are not suitable for installation of signs; do not proceed until conditions are satisfactory.

### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Install with horizontal edges level.

**END OF SECTION 10 14 19**

**SECTION 10 26 00 - WALL AND DOOR PROTECTION****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Corner guards.
- B. Protective wall covering.

**1.02 REFERENCE STANDARDS**

- A. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials; 2022.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Indicate physical dimensions, features, wall mounting brackets with mounted measurements, anchorage details, and rough-in measurements.
- C. Shop Drawings: Include plans, elevation, sections, and attachment details. Show design and spacing of supports for protective corridor handrails, required to withstand structural loads.
- D. Samples: Submit samples illustrating component design, configurations, joinery, color and finish.
- E. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver wall and door protection items in original, undamaged protective packaging. Label items to designate installation locations.
- B. Do not deliver products to project site until areas for storage and installation are fully enclosed, and interior temperature and humidity are in compliance with manufacturer's recommendations for each type of item.
- C. Store products in either horizontal or vertical position, in compliance with manufacturer's instructions.

**1.05 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide 5-year manufacturer warranty for metal crash rails. Complete forms in Owner's name and register with manufacturer.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures or internal connection failures.
    - b. Deterioration of materials beyond that expected of normal use, as intended by manufacturer.
- C. Installer Warranty: Provide 5-year warranty for metal crash rails commencing on Date of Substantial Completion. Complete forms in Owner's name and register with installer.
  - 1. Failures include, but are not limited to, the following:
    - a. Detachment of rail system from substrate.

**PART 2 PRODUCTS****2.01 PRODUCT TYPES**

- A. Corner Guards - Flush Mounted:
  - 1. Material: Type 304 stainless steel, No. 4 finish, 18 gauge, .0478 inch thick.
  - 2. Performance: Resist lateral impact force of 100 lbs at any point without damage or permanent set.
  - 3. Fire Resistance: Where fire rating is specified for the wall in which the guard is mounted, provide assemblies that have been tested in accordance with ASTM E119 for the same rating as the wall.

4. Width of Wings: As indicated on drawings.
  5. Corner: Radiused, 1/8 inch.
  6. Finish: directional satin.
  7. Length: One piece.
  8. Mounting: Countersunk screws through factory-drilled holes.
- B. Protective Wall Panels:
1. Stainless Steel Backsplash with hemmed edges installed on walls above mop sink.
  2. Thickness: 18 gauge.
  3. Panel Size: 3ft x 3ft, unless otherwise indicated on drawings.
  4. Color and Pattern: Satin.
  5. Mounting: Type 316 Stainless Steel countersinking screws with matching domed finishing washers.
  6. Seal all edges with clear Sanitary Sealant.

## **2.02 FABRICATION**

- A. Fabricate components with tight joints, corners and seams.
- B. Pre-drill holes for attachment.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that rough openings, concealed blocking, and anchors are correctly sized and located.
- B. Verify that substrate surfaces for adhered items are clean and smooth.
- C. Start of installation constitutes acceptance of project conditions.

### **3.02 INSTALLATION**

- A. Install components in accordance with manufacturer's instructions, level and plumb, secured rigidly in position to supporting construction.
- B. Position corner guard 6 inch above finished floor to 96 inches high.

### **3.03 CLEANING**

- A. Clean wall protection items of excess adhesive, dust, dirt, and other contaminants.

**END OF SECTION 10 26 00**



**SECTION 10 28 00 - TOILET, BATH AND LAUNDRY ACCESSORIES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Commercial toilet accessories.
- B. Commercial shower and bath accessories.
- C. Under-lavatory pipe supply covers.
- D. Utility room accessories.

**1.02 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate accessory locations with other work to prevent interference with clearances required for access by people with disabilities, and for proper installation, adjustment, operation, cleaning, and servicing of accessories.
- B. Deliver inserts and anchoring devices set into concrete or masonry as required to prevent delaying the Work.
- C. Coordinate the work with the placement of internal wall reinforcement and concealed ceiling supports to receive anchor attachments.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.
- C. Samples: Submit two samples of each accessory, illustrating color and finish.
- D. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

**1.04 WARRANTY**

- A. Manufacturer's Special Warranty for Mirrors: Manufacturer agrees to repair or replace mirrors that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, visible silver spoilage defects.
  - 2. Warranty Period: 15 years from date of Substantial Completion.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Commercial Toilet Accessories:
  - 1. When basis of design is provided on drawings the drawings override products listed in specification.
  - 2. Kohler: <https://www.kohler.com/>
  - 3. American Specialties, Inc; \_\_\_\_: [www.americanspecialties.com/#sle](http://www.americanspecialties.com/#sle).
  - 4. Bradley Corporation: [www.bradleycorp.com](http://www.bradleycorp.com).
  - 5. Georgia-Pacific Professional: [www.blue-connect.com/#sle](http://www.blue-connect.com/#sle).
  - 6. Substitutions: Section 01 60 00 - Product Requirements.

**2.02 MATERIALS**

- A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
  - 1. Grind welded joints smooth.
  - 2. Fabricate units made of metal sheet of seamless sheets, with flat surfaces.
- B. Keys: Provide 2 keys for each accessory to Owner; master key lockable accessories.
- C. Stainless Steel Sheet: ASTM A666, Type 304.
- D. Mirror Glass: Tempered safety glass, ASTM C1048; and ASTM C1036 Type I, Class 1, Quality Q2, with silvering as required.

- E. Adhesive: Two component epoxy type, waterproof.
- F. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

### 2.03 FINISHES

- A. Stainless Steel: Satin finish, unless otherwise noted.

### 2.04 COMMERCIAL TOILET ACCESSORIES

- A. Toilet Paper Dispenser: Double roll, surface mounted bracket type, stainless steel, spindleless type for tension spring delivery designed to prevent theft of tissue roll.
  - 1. Basis of Design: Bobrick B-2740
- B. Soap Dispenser: Liquid soap dispenser, wall-mounted, surface, with stainless steel cover and horizontal stainless steel tank and working parts; push type soap valve, check valve, and window gauge refill indicator, tumbler lock.
  - 1. Minimum Capacity: 40 ounces.
  - 2. Basis of Design: Bobrick B-2111.
- C. Mirrors: Stainless steel framed, 1/4 inch thick tempered safety glass; ASTM C1048.
  - 1. Basis of Design: Bobrick B165 Series.
  - 2. Size: As indicated on drawings.
  - 3. Frame: 0.05 inch channel shapes, with mitered and welded and ground corners, and tamperproof hanging system; satin finish.
  - 4. Backing: Full-mirror sized, minimum 0.03 inch galvanized steel sheet and nonabsorptive filler material.
- D. Grab Bars: Stainless steel, nonslip grasping surface finish.
  - 1. Heavy Duty Grab Bars (Two-wall horizontal grab bar): Floor supports are not acceptable.
    - a. Basis of Design: Bobrick B-6897
    - b. Push/Pull Point Load: Minimum 900 pound-force, minimum.
    - c. Dimensions: 1-1/2 inch outside diameter, minimum 0.125 inch wall thickness, exposed flange mounting, 1-1/2 inch clearance between wall and inside of grab bar.
    - d. Mounting: Flanges with concealed fasteners.
    - e. Length and Configuration: As indicated on drawings.
- E. Hat and Coat Hook: Heavy-duty stainless steel, rectangular-shaped bracket and backplate for concealed attachment, satin finish.
  - 1. Product: Brobrick B-2116.

### 2.05 COMMERCIAL SHOWER AND BATH ACCESSORIES

- A. Shower Curtain Rod: Stainless steel tube, 1 inch outside diameter, 0.04 inch wall thickness, satin-finished, with 3 inch outside diameter, minimum 0.04 inch thick satin-finished stainless steel flanges, for concealed mounting.
- B. Shower Curtain:
  - 1. Material: Opaque vinyl, 0.008 inch thick, matte finish, with antibacterial treatment, flameproof and stain-resistant.
  - 2. Size: width to exceed opening by 2 inches, hemmed edges.
  - 3. Grommets: Stainless steel; pierced through top hem on 6 inch centers.
  - 4. Color: As selected from manufacturer's standard colors.
- C. Folding Shower Seat: Wall-mounted surface; welded tubular seat frame, structural support members, swing-down legs, hinges, and mechanical fasteners of Type 304 stainless steel, rectangular seat.
  - 1. Seat: Phenolic or polymeric composite one-piece seat or seat slats, of color as selected.
  - 2. Size: ADA Standards compliant.
  - 3. Products:

- a. Seachrome Corporation; Shower Seats- L-shaped Transfer Style, Reversible:  
www.seachrome.com/#sle.
- D. Towel Bar: Stainless steel, 3/4 inch round tubular bar; rectangular brackets, concealed attachment, satin finish.
  - 1. Length: as indicated on drawings.
  - 2. Product: Bobrick B-6747x24
- E. Shower Grab Bars: Stainless steel, nonslip grasping surface finish.
  - 1. Product: Bobrick B-5837.
- F. Robe Hook: Heavy-duty stainless steel, single-prong, rectangular-shaped bracket and backplate for concealed attachment, satin finish.
  - 1. Product: Bobrick B-76717.

## 2.06 UNDER-LAVATORY PIPE AND SUPPLY COVERS

- A. Under-Lavatory Pipe and Supply Covers:
  - 1. Insulate exposed drainage piping including hot, cold, and tempered water supplies under lavatories or sinks to comply with ADA Standards.
  - 2. Exterior Surfaces: Smooth non-absorbent, non-abrasive surfaces.
  - 3. Construction: 1/8 inch flexible PVC.
    - a. Surface Burning Characteristics: Flame spread index of 25 or less and smoke developed index of 450 or less, when tested in accordance with ASTM E84.
    - b. Comply with ICC A117.1.
    - c. Microbial and Fungal Resistance: Comply with ASTM G21.
  - 4. Color: White.
  - 5. Fasteners: Reusable, snap-locking fasteners with no sharp or abrasive external surfaces.

## 2.07 UTILITY ROOM ACCESSORIES

- A. Combination Utility Shelf/Mop and Broom Holder: 0.05 inch thick stainless steel, Type 304, with 1/2 inch returned edges, 0.06 inch steel wall brackets.
  - 1. Drying rod: Stainless steel, 1/4 inch diameter.
  - 2. Hooks: 3, 0.06 inch stainless steel rag hooks at shelf front.
  - 3. Mop/broom holders: 4 spring-loaded rubber cam holders at shelf front.
  - 4. Length: Manufacturer's standard length for number of holders/hooks.
  - 5. Products:
    - a. Bobrick B-224 x 36.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.
- C. Verify that field measurements are as indicated on drawings.

### 3.02 PREPARATION

- A. Deliver inserts and rough-in frames to site for timely installation.
- B. Provide templates and rough-in measurements as required.

### 3.03 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions in locations indicated on drawings.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
  - 1. Grab Bars: As indicated on drawings.
  - 2. Other Accessories: As indicated on drawings.

**3.04 PROTECTION**

- A. Protect installed accessories from damage due to subsequent construction operations.

**END OF SECTION 10 28 00**

**SECTION 10 28 19 - TUB AND SHOWER ENCLOSURES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Shower surrounds.

**1.02 REFERENCE STANDARDS**

- A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.
- B. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- C. ISFA 2-01 - Classification and Standards for Solid Surfacing Material; 2013.
- D. NEMA LD 3 - High-Pressure Decorative Laminates; 2005.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's literature for enclosure.
- C. Shop Drawings: Indicate layout, dimensions, identification of components, and interface with adjacent construction.
- D. Selection Samples: Two sets, representing manufacturer's full range of available cast polymer materials and finishes.
- E. Verification Samples: Two samples, minimum size of 2 inch by 3 inch, representing actual material and finish of exposed cast polymer.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- G. Specimen Warranty.
- H. Manufacturer's Installation Instructions: Indicate complete preparation, installation, and cleaning requirements.
- I. Manufacturer's Qualification Statement.
- J. Installer's Qualification Statement.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with at least three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least three years of documented experience.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Store products in manufacturer's unopened packaging until installation.

**1.06 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide five year manufacturer warranty against structural failure and excessive degradation of metal finishes.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Cast Polymer Tub and Shower Surrounds:
  - 1. Swan Surfaces: [www.swanstone.com/#sle](http://www.swanstone.com/#sle).
  - 2. Florestone Products.
  - 3. Barrier Free Architecturals, Inc.
  - 4. Substitutions: See Section 01 60 00 - Product Requirements.

## **2.02 SHOWER SURROUNDS**

- A. Description: Cast polymer panels over continuous substrate; installed in alcove above shower receptor or tub; available as individual panels or as kits.
- B. Panel Thickness: 0.225 inch thick.
- C. Configuration and Dimensions: As indicated on drawings.

## **2.03 MATERIALS**

- A. Cast Polymer Surround Material: Complying with ISFA 2-01 and NEMA LD 3; acrylic resin, renewable material filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
  - 1. Resin: Proprietary; integrally-colored, stain-resistant and resistant to domestic chemicals and cleaners.
  - 2. Surface Burning Characteristics: Flame spread index of 25 or less, and smoke developed index of 450 or less, Class A, when tested in accordance with ASTM E84.
  - 3. Color and Pattern: As selected by from manufacturer's full line.
- B. Sealant: One-part mildew-resistant silicone sealant, complying with ASTM C920, clear.
- C. Touch-Up Materials: As recommended by coating manufacturer for field application.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that field measurements are as indicated.
- B. Do not begin installation until supports and adjacent substrates are complete.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.02 PREPARATION**

- A. Clean substrates thoroughly prior to installation.
- B. Prepare substrates as recommended by the manufacturer.

### **3.03 INSTALLATION**

- A. Install in accordance with manufacturer's instructions and approved shop drawings.
- B. Fit and align tub and shower enclosure level and plumb.

### **3.04 CLEANING**

- A. Remove protective film and temporary stickers from exposed metal and glass surfaces.

### **3.05 PROTECTION**

- A. Protect installed products until Date of Substantial Completion.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

**END OF SECTION 10 28 19**

**SECTION 10 44 00 - FIRE PROTECTION SPECIALTIES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Fire extinguishers.
- B. Fire extinguisher cabinets.
- C. Accessories.

**1.02 REFERENCE STANDARDS**

- A. FM (AG) - FM Approval Guide; current edition.
- B. NFPA 10 - Standard for Portable Fire Extinguishers; 2017, with Errata (2018).
- C. UL (DIR) - Online Certifications Directory; Current Edition.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide extinguisher operational features, extinguisher ratings and classifications, color and finish, anchorage details, and installation instructions.
- C. Shop Drawings: Indicate locations of individual fire extinguishers, mounting measurements for wall bracket, installation procedures, and accessories required for complete installation.
- D. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. Maintenance Data: Include test, refill or recharge schedules and re-certification requirements.

**1.04 FIELD CONDITIONS**

- A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Fire Extinguishers:
  - 1. Ansul, a Tyco Business: [www.ansul.com](http://www.ansul.com).
  - 2. Kidde, a unit of United Technologies Corp: [www.kidde.com](http://www.kidde.com).
  - 3. Nystrom, Inc: [www.nystrom.com/sle](http://www.nystrom.com/sle).

**2.02 FIRE EXTINGUISHERS**

- A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
  - 1. Provide extinguishers labeled by UL (DIR) or FM (AG) for purpose specified and as indicated.
  - 2. Provide quantity indicated on plans.
  - 3. Fire Marshal has final say on type, location and number of Fire Extinguishers; the extinguishers specified in schedule is basis of design.

**2.03 FIRE EXTINGUISHER CABINETS**

- A. Cabinet Configuration: Semi-recessed type.
  - 1. Size to accommodate accessories.
  - 2. Trim: Flat square edge, with 1 inch wide face.
  - 3. Provide cabinet enclosure with right angle inside corners and seams, and with formed perimeter trim and door stiles.

- B. Door: 0.036 inch metal thickness, reinforced for flatness and rigidity with nylon catch. Hinge doors for 180 degree opening with two butt hinges.
- C. Door Glazing: Tempered glass, clear, 1/8 inch thick, and set in resilient channel glazing gasket.
- D. Cabinet Mounting Hardware: Appropriate to cabinet, with pre-drilled holes for placement of anchors.
- E. Fabrication: Weld, fill, and grind components smooth.
- F. Finish of Cabinet Exterior Trim and Door: Baked enamel, color as selected.
- G. Finish of Cabinet Interior: White colored enamel.

#### **2.04 ACCESSORIES**

- A. Extinguisher Brackets: Formed steel, galvanized and enamel finished.
- B. Graphic Identification:
- C. Lettering: FIRE EXTINGUISHER decal, or vinyl self-adhering, pre-spaced lettering in accordance with authorities having jurisdiction (AHJ). Color as selected by Architect.

#### **PART 3 EXECUTION**

##### **3.01 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify rough openings for cabinet are correctly sized and located.

##### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Install cabinets plumb and level.
- C. Secure rigidly in place.
- D. Place extinguishers in cabinets and on wall brackets.
- E. Examine fire extinguishers for proper charging and tagging. Remove and replace damaged, defective, or uncharged fire extinguishers.

**END OF SECTION 10 44 00**



**SECTION 10 51 43 - WIRE MESH STORAGE LOCKERS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Fire Station Lockers.

**1.02 REFERENCE STANDARDS**

- A. ASTM A510/A510M - Standard Specification for General Requirements for Wire Rods and Coarse Round Wire, Carbon Steel, and Alloy Steel; 2020.
- B. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data on locker construction, sizes, and accessories.
- C. Shop Drawings: Indicate locker plan layout, numbering plan.
- D. Manufacturer's Installation Instructions: Indicate component installation assembly.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Protect locker finish and adjacent surfaces from damage.

**PART 2 PRODUCTS****2.01 MANUFACTURERS**

- A. Wire Mesh Storage Lockers:
  - 1. Basis of Design as indicated on drawings, alternative manufactures will be reviewed on an "or equal" basis.
  - 2. Art Metal Products
  - 3. DeBourgh All American Lockers
  - 4. List Industries, Inc.
  - 5. Lyon Metal Products
  - 6. Penco Products, Inc.
  - 7. Republic Storage Systems Company
  - 8. Substitutions: See Section 01 60 00 - Product Requirements.

**2.02 LOCKER APPLICATIONS**

- A. Fire Station Wall Mount Lockers: wall-anchored and free-standing.
  - 1. Compartment Sizes: unit length determined by number of compartments.
    - a. Width: 24 inches.
    - b. Depth: 20 inches.
    - c. Height: 72 inches, min..
  - 2. Configuration:
    - a. Vertical: Single tier.
  - 3. Components:
    - a. Front Panels: Framed door panel.
      - 1) Doors: Same mesh and framing as wall panels. Factory pre-hung.
        - (a) Width: Full-width of locker.
        - (b) Height: Full-height of locker.
    - b. Side Panels: Welded wire mesh.
    - c. Backs: Welded wire mesh.
    - d. Shelves: two shelves adjustable in 3 inch increments constructed of Welded wire mesh.
    - e. Tops: individual or continuous; Same mesh and framing as wall panels; Flat.
    - f. Floors: Welded wire mesh. Attached to and supported by locker frame.

- g. Hooks: three apparel hooks per locker opening.
- 4. Locking: Padlock hasps, for padlocks provided by tenant.

### **2.03 WIRE MESH STORAGE LOCKERS**

- A. Wire Mesh Lockers: Factory assembled, welded construction, modular assemblies of panels, doors, anchors, hardware, and accessories as required to provide a complete system.

### **2.04 MATERIALS AND COMPONENTS**

- A. Woven Wire Mesh: Heavy duty.
  - 1. Material: ASTM A510/A510M uncoated crimped steel wire.
  - 2. Wire Size: 6 gauge, 0.192 inch.
  - 3. Mesh Opening Size: 2 inch diamond shape.
- B. Framed Panels:
  - 1. Panel and Door Frames: 1-1/4 inch by 1-1/4 inch; 16 gauge, 0.0598 inch cold-rolled steel angle, welded.
  - 2. Fabrication: Mesh welded to frame.
- C. Doors: Same material as partitions, fully framed; manufacturer's standard construction and hardware for swing operation.
  - 1. Locking: Integrated padlock hasps for padlocks provided by Owner.
  - 2. Hinges: Heavy duty, 7-knuckle type; two for doors under 42 inches high; three for doors over 42 inches high.
- D. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- E. Coat Hooks: Stainless steel or zinc-plated steel.
- F. Name Plates: Custom printed, rectangular, aluminum, name plates.

### **2.05 FASTENERS**

- A. Bolts, Nuts and Washers: Hot dip galvanized.
- B. Anchorage Devices: Provide power driven, powder actuated, and drilled expansion bolts.
- C. Exposed Mechanical Fastenings: Flush countersunk screws or bolts, unobtrusively located, consistent with design of structure.

### **2.06 FINISHES**

- A. Painted Finish: Manufacturer's standard powder coat finish.
  - 1. Color: Red.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that substrate surfaces are ready to receive work.

### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Install lockers plumb and square.
- C. Secure lockers with anchor devices to suit substrate materials. Minimum Pullout Force: 100 pounds.
- D. Install fittings if not factory installed.
- E. Replace components that do not operate smoothly.

### **3.03 CLEANING**

- A. Clean locker interiors and exterior surfaces.

**END OF SECTION 10 51 43**

**SECTION 10 73 16.13 - METAL CANOPIES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Attached metal canopies.

**1.02 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Submit product data sheets, including material descriptions and finishes, and preparation instructions and recommendations.
- C. Shop Drawings: Prior to commencement of fabrication, submit detailed shop drawings, showing profiles, sections of components, finishes, and fastening details.
- D. Design Data: Submit comprehensive structural analysis of design for the specified loads. Stamp and sign calculations by professional engineer.
- E. Welders' Qualification Statement: Welders' certificates in accordance with AWS B2.1/B2.1M and dated no more than 12 months before start of scheduled welding work.
- F. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

**1.03 QUALITY ASSURANCE**

- A. Designer Qualifications: Perform design under direct supervision of a Professional Engineer experienced in design of this type of work and licensed in the State in which the Project is located.
  - 1. Comply with applicable code for submission of design calculations as required for acquiring permits.
  - 2. Cooperate with regulatory agency or authorities having jurisdiction (AHJ), and provide data as requested.
- B. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
  - 1. Not less than three years of documented experience.
- C. Erector Qualifications: Company specializing in performing the work of this section.

**1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to project site ready for erection.
- B. Package using methods that prevent damage during shipping and storage on site.
- C. Store materials under cover and elevated above grade.

**1.05 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Metal Canopies: Correct defective work within a two year period after Date of Substantial Completion.
- C. Finish Warranty: Provide manufacturer's ten year warranty on factory finish against cracking, peeling, and blistering.

**PART 2 PRODUCTS****2.01 METAL CANOPIES**

- A. Shop Fabricated Steel Canopy
- B. Shop Fabricated Aluminum Canopy
- C. Configuration: Layout and dimensions, canopy clearance, fascia profile.
  - 1. Installation: Cantilever-Mounted to structure.
  - 2. Structural Framing System: Aluminum.
  - 3. Covering Material: Aluminum.

4. Drainage Concept: Water collected in decking conducted into perimeter drain beams and discharged through scuppers.
- D. Performance Requirements:
  1. Thermal Movement: Design canopy system to accommodate thermal movement caused by ambient temperature range of 120 degrees F and surface temperature range of 180 degrees F without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects on assembly components.
  2. Electrical Components, Devices, and Accessories: Listed and labeled by ITS (DIR), UL (DIR), or testing agency acceptable to authorities having jurisdiction and installed in compliance with NFPA 70, and marked for intended application.

## 2.02 COMPONENTS

- A. Structural Aluminum Framing: Alloy and temper 6063-T5, 6063-T6, or 6061-T6.
  1. Extruded Shapes and Tubes: ASTM B221 (ASTM B221M).
  2. Rolled or Extruded Structural Shapes: ASTM B308/B308M.
  3. Sheet and Plate: Alloy 5052, 5005, or 6061-T651, ASTM B209/B209M.
- B. Covering:
  1. Aluminum Decking:
    - a. Interlocking extruded aluminum decking modules.
      - 1) Extruded Decking: ASTM B221 (ASTM B221M), Alloy and temper 6005-T5, 6061-T6, or 6063-T6.
    - b. Decking Orientation: Perpendicular to sidewalk.
- C. Fascia: Same material as structural framework, 8 inches high.
- D. Anchor Bolts: ASTM A307 or ASTM A572/A572M, formed with bent shank, assembled with template for casting into concrete.
  1. Minimum exposed thread of 7 inches above footing and 23 inch minimum embedment.
  2. Provide nuts and washers as required for column leveling and plumbing.

## 2.03 SHOP FABRICATION

- A. Provide a complete system ready for erection at project site.
- B. Shop fabricate to the greatest extent possible; disassemble if necessary for shipping.
- C. Weld aluminum members in accordance with AWS D1.2/D1.2M.
- D. Fabricate connections for bolt, nut, and washer connectors.

## 2.04 FINISHES

- A. Aluminum Framing and Decking:
  1. High Performance Organic Coatings: AAMA 2604, multiple coats, thermally cured, fluoropolymer system.
  2. Color: as selected from full range.

## 2.05 ACCESSORIES

- A. Structural Bolts: ASTM F3125/F3125M, Grade A325, minimum 3/4 inch diameter.
- B. Trim, Closure Pieces, and Flashings: Same material, thickness and finish as sheet metal decking; factory-fabricated to required profiles.
  1. Exposed Fasteners: Not permitted.
- C. Grout: ASTM C1107/C1107M; non-shrinking; premixed compound consisting of non-metallic aggregate, cement, water-reducing and plasticizing agents.
- D. Fasteners, Non-Structural: ASTM F593 stainless steel or ASTM A307 carbon steel.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Examine substrates and site area for conditions that might prevent satisfactory installation.

- B. Verify that foundation, electrical utilities, and placed anchors are in correct position.
- C. Do not proceed with installation until all conditions are satisfactory.

**3.02 INSTALLATION - FRAMING**

- A. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation.
- B. Set column base plates with non-shrink grout to achieve full plate bearing.
- C. Fasten columns to anchor bolts.
- D. Do not field cut or alter structural members without approval.
- E. After erection, prime welds, abrasions, and surfaces not shop primed.

**3.03 INSTALLATION - CANOPY COVERING**

- A. Install in accordance with manufacturer's instructions.
- B. Fasten metal decking to metal support members, aligned level and plumb.
- C. Install fascia panels, trim, and flashing.
- D. Separate dissimilar metals using concealed bituminous paint.
- E. Touch-up damaged finish coating using material provided by manufacturer to match original coating.

**3.04 TOLERANCES**

- A. Maximum Variation from Level: Plus/Minus 1/8 inch.

**3.05 CLEANING**

- A. See Section 01 70 00 - Execution and Closeout Requirements for additional requirements.
- B. Clean surfaces of dust and debris; follow manufacturer's cleaning instructions for the finish used.

**3.06 PROTECTION**

- A. Protect canopy after installation to prevent damage due to other work until Date of Substantial Completion.

**END OF SECTION 10 73 16.13**

**SECTION 12 24 00 - WINDOW SHADES****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Interior manual roller shades.

**1.02 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene one week prior to commencing work related to products of this section; require attendance of affected installers.
- B. Sequencing:
  - 1. Do not fabricate shades until field dimensions for each opening have been taken with field conditions in place.
  - 2. Do not install shades until final surface finishes and painting are complete.

**1.03 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets, including materials, finishes, fabrication details, dimensions, profiles, mounting requirements, and accessories.
- C. Shop Drawings: Include shade schedule indicating size, location and keys to details, head, jamb and sill details, mounting dimension requirements for each product and condition, and operation direction.
- D. Selection Samples: Include fabric samples in full range of available colors and patterns.
- E. Manufacturer's Instructions: Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- F. Warranty: Submit sample of manufacturer's warranty and documentation of final executed warranty completed in Owner's name and registered with manufacturer.

**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section, with not less than five years of documented experience.

**1.05 MOCK-UP**

- A. Mock-Up: Provide full size mock-up of window shade system complete with selected shade fabric including example of seams and batten pockets when applicable.
  - 1. Obtain Architect's approval of light and privacy characteristics of fabric prior to fabrication.
  - 2. Full-sized mock-up may become part of the final installation.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver shades in manufacturer's unopened packaging, labeled to identify each shade for each opening.
- B. Handle and store shades in accordance with manufacturer's recommendations.

**1.07 FIELD CONDITIONS****1.08 WARRANTY**

- A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's warranty from Date of Substantial Completion, covering the following:
  - 1. Shade Hardware: One year.
  - 2. Fabric: One year.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Interior Manually Operated Roller Shades: Basis of Design as indicated on drawings.
  - 1. Draper, Inc: [www.draperinc.com/#sle](http://www.draperinc.com/#sle).
  - 2. Hunter Douglas Architectural: [www.hunterdouglasarchitectural.com/#sle](http://www.hunterdouglasarchitectural.com/#sle).
  - 3. Lutron Electronics Co., Inc: [www.lutron.com/#sle](http://www.lutron.com/#sle).
  - 4. MechoShade Systems LLC: [www.mechoshade.com/#sle](http://www.mechoshade.com/#sle).
  - 5. Substitutions: See Section 01 60 00 - Product Requirements.
- B. Source Limitations: Furnish products produced by a single manufacturer and obtained from a single supplier.

### 2.02 ROLLER SHADES

- A. General:
  - 1. Provide shade system components that are easy to remove or adjust without removal of mounted shade brackets.
  - 2. Provide shade system that operates smoothly when shades are raised or lowered.
- B. Roller Shades:
  - 1. Description - Interior Roller Shades: Single roller, manually operated fabric window shade system complete with mounting brackets, roller tubes, hembars, hardware, and accessories.
    - a. Drop Position: Regular roll.
    - b. Roll Direction: Roll down, closed position is at window sill.
    - c. Mounting: Window jamb mounted - inside, between jambs.
    - d. Size: match window opening.
    - e. Fabric: As indicated under Shade Fabric article.
  - 2. Brackets and Mounting Hardware: As recommended by manufacturer for mounting indicated and to accommodate shade fabric roll-up size and weight.
  - 3. Roller Tubes: As required for type of shade operation.
    - a. Material: Extruded aluminum, clear anodized finish.
    - b. Size: As recommended by manufacturer; selected for suitability for installation conditions, span, and weight of shades.
    - c. Fabric Attachment: Utilize extruded channel in tube to accept vinyl spline welded to fabric edge.
  - 4. Hembars: Designed to maintain bottom of shade straight and flat.
    - a. Style: Full wrap fabric covered bottom bar, flat profile with heat sealed closed ends.
  - 5. Manual Operation for Interior Shades:
    - a. Clutch Operator: Manufacturer's standard material and design, permanently lubricated.
    - b. Drive Chain: Continuous loop beaded ball chain, 95 lb minimum breaking strength. Provide upper and lower limit stops.
    - c. Chain Retainer:
      - 1) Manufacturer's standard clip.
  - 6. Accessories:
    - a. Fascia: Extruded aluminum, size as required to conceal shade mounting, attachable to brackets without exposed fasteners; baked enamel finish.
      - 1) Color: As selected from full range.
      - 2) Profile: Square.
    - b. Interior Side Channels: As required for light sealing room-darkening shade applications.
    - c. Fasteners: Noncorrosive, and as recommended by shade manufacturer.

### **2.03 SHADE FABRIC**

- A. Fabric for Light-Filtering Shades: Nonflammable, color-fast, impervious to heat and moisture, and able to retain its shape under normal operation.
  - 1. Manufacturers:
    - a. Lutron Electronics Co., Inc: [www.lutron.com/#sle](http://www.lutron.com/#sle).
    - b. MechoShade Systems LLC: [www.mechoshade.com/#sle](http://www.mechoshade.com/#sle).
    - c. Mermet Corporation: [www.mermetusa.com/#sle](http://www.mermetusa.com/#sle).
    - d. Substitutions: See Section 01 60 00 - Product Requirements.
  - 2. Performance Requirements:
    - a. Flammability: Pass NFPA 701 large and small tests.
    - b. Fungal Resistance: No growth when tested according to ASTM G21.
  - 3. Openness Factor: 5%.
  - 4. Color: As selected by Architect from manufacturer's full range of colors.

### **2.04 ROLLER SHADE FABRICATION**

- A. Field measure finished openings prior to ordering or fabrication.
- B. Dimensional Tolerances: As recommended in writing by manufacturer.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Examine finished openings for deficiencies that may preclude satisfactory installation.
- B. Start of installation shall be considered acceptance of substrates.

### **3.02 PREPARATION**

- A. Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under the project conditions.
- B. Coordinate with window installation and placement of concealed blocking to support shades.

### **3.03 INSTALLATION**

- A. Install in accordance with manufacturer's instructions and approved shop drawings, using mounting devices as indicated.
- B. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric. Ensure smooth shade operation.

### **3.04 CLEANING**

- A. Clean soiled shades and exposed components as recommended by manufacturer.
- B. Replace shades that cannot be cleaned to "like new" condition.

### **3.05 CLOSEOUT ACTIVITIES**

- A. See Section 01 78 00 - Closeout Submittals, for closeout submittals.

### **3.06 PROTECTION**

- A. Protect installed products from subsequent construction operations.
- B. Touch-up, repair, or replace damaged products before Substantial Completion.

**END OF SECTION 12 24 00**



## SECTION 12 36 00 - COUNTERTOPS

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Countertops.
- B. Wall-hung counters and vanity tops.

#### 1.02 RELATED REQUIREMENTS

- A. Section 06 41 00 - Architectural Wood Casework.

#### 1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Specimen warranty.
- C. Shop Drawings: Complete details of materials and installation ; combine with shop drawings of cabinets and casework specified in other sections.
- D. Selection Samples: For each finish product specified, color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, minimum size 6 inches square, representing actual product, color, and patterns.
- F. Test Reports: Chemical resistance testing, showing compliance with specified requirements.
- G. Certificate: Submit labels and certificates required by quality assurance and quality control programs.
- H. Installation Instructions: Manufacturer's installation instructions and recommendations.
- I. Maintenance Data: Manufacturer's instructions and recommendations for maintenance and repair of countertop surfaces.

#### 1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified in this section, with not less than three years of documented experience.
- B. Quality Certification:
  - 1. Provide designated labels on shop drawings as required by certification program.
  - 2. Provide designated labels on installed products as required by certification program.
  - 3. Submit certifications upon completion of installation that verifies this work is in compliance with specified requirements.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

#### 1.06 FIELD CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

### PART 2 PRODUCTS

#### 2.01 COUNTERTOPS

- A. Quality Standard: Premium Grade, in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), unless noted otherwise.

- B. Plastic Laminate Countertops: High-pressure decorative laminate (HPDL) sheet bonded to substrate.
1. Laminate Sheet: NEMA LD 3, Grade HGS, 0.048 inch nominal thickness.
    - a. Manufacturers:
      - 1) Formica Corporation: [www.formica.com/#sle](http://www.formica.com/#sle).
      - 2) Lamin-Art, Inc: [www.laminart.com/#sle](http://www.laminart.com/#sle).
      - 3) Wilsonart: [www.wilsonart.com/#sle](http://www.wilsonart.com/#sle).
      - 4) Substitutions: See Section 01 60 00 - Product Requirements.
    - b. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
    - c. Wear Resistance: In addition to specified grade, comply with NEMA LD 3 High Wear Grade requirements for wear resistance.
    - d. Finish: Matte or suede, gloss rating of 5 to 20.
    - e. Surface Color and Pattern: As selected by Architect from the manufacturer's full line.
  2. Exposed Edge Treatment: Square, substrate built up to minimum 1-1/4 inch thick; covered with matching laminate.
  3. Back and End Splashes: Same material, same construction.
  4. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Premium Grade.
- C. Solid Surfacing Countertops: Solid surfacing sheet or plastic resin casting over continuous substrate.
1. Flat Sheet Thickness: 1/4 inch, minimum.
  2. Solid Surfacing Sheet and Plastic Resin Castings: Complying with ISFA 2-01 and NEMA LD 3; acrylic or polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.
    - a. Basis of Design: as listed on drawings.
    - b. Manufacturers:
      - 1) Avonite Surfaces: [www.avonitesurfaces.com](http://www.avonitesurfaces.com).
      - 2) Dupont; Corian: [www.corian.com](http://www.corian.com).
      - 3) Wilsonart: [www.wilsonart.com/#sle](http://www.wilsonart.com/#sle).
    - c. Surface Burning Characteristics: Flame spread index of 25, maximum; smoke developed index of 450, maximum; when tested in accordance with ASTM E84.
    - d. Finish on Exposed Surfaces: Matte, gloss rating of 5 to 20.
    - e. Color and Pattern: As selected by Architect from manufacturer's full line.
  3. Other Components Thickness: 1/2 inch, minimum.
  4. Exposed Edge Treatment: Built up to minimum 1-1/4 inch thick; square edge; use marine edge at sinks.
  5. Back and End Splashes: Same sheet material, square top; minimum 4 inches high.
  6. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Premium Grade.
- D. Natural Quartz and Resin Composite Countertops: Sheet or slab of natural quartz and plastic resin over continuous substrate.
1. Flat Sheet Thickness: 3/4 inch, minimum.
  2. Natural Quartz and Resin Composite Sheets, Slabs and Castings: Complying with ISFA 3-01 and NEMA LD 3; orthophthalic polyester resin, mineral filler, and pigments; homogenous, non-porous and capable of being worked and repaired

using standard woodworking tools; no surface coating; color and pattern consistent throughout thickness.

- a. Manufacturers:
    - 1) Ceasarstone.
    - 2) Wilsonart: [www.wilsonart.com/#sle](http://www.wilsonart.com/#sle).
  - b. Factory fabricate components to the greatest extent practical in sizes and shapes indicated; comply with the MIA Dimension Stone Design Manual.
  - c. NSF approved for food contact.
  - d. Sinks: Separate units for undercounter mounting; minimum 3/4 inch wall thickness; comply with IAPMO Z124.
  - e. Finish on Exposed Surfaces: Polished.
  - f. Color and Pattern: As selected by Architect from manufacturer's full line.
3. Other Components Thickness: 1/2 inch, minimum.
  4. Exposed Edge Treatment: Built up to minimum 1-1/2 inch thick; edge profile as indicated on drawings; use marine edge at sinks.
  5. Back and End Splashes: Same sheet material, square top; minimum 4 inches high.
  6. Skirts: As indicated on drawings.
  7. Fabricate in accordance with AWI/AWMAC/WI (AWS) or AWMAC/WI (NAAWS), Section 11 - Countertops, Premium Grade.
  8. Joints: Fabricate countertop with minimal joints.
    - a. Joint Locations: Not within 18 inches of a sink or cooktop and not where countertop section less than 36 inches long would result, unless unavoidable.

## 2.02 MATERIALS

- A. Plywood for Supporting Substrate: PS 1 Exterior Grade, A-C veneer grade, minimum 5-ply; minimum 3/4 inch thick; join lengths using metal splines.
- B. Adhesives: Chemical resistant waterproof adhesive as recommended by manufacturer of materials being joined.
- C. Joint Sealant: Mildew-resistant silicone sealant, clear.

## 2.03 FABRICATION

- A. Fabricate tops and splashes in the largest sections practicable, with top surface of joints flush.
  1. Join lengths of tops using best method recommended by manufacturer.
  2. Fabricate to overhang fronts and ends of cabinets 1 inch except where top butts against cabinet or wall.
  3. Prepare all cutouts accurately to size; replace tops having improperly dimensioned or unnecessary cutouts or fixture holes.
- B. Provide back/end splash wherever counter edge abuts vertical surface unless otherwise indicated.
  1. Secure to countertop with concealed fasteners and with contact surfaces set in waterproof glue.
  2. Height: 4 inches, unless otherwise indicated.
- C. Solid Surfacing: Fabricate tops and wall panels up to 144 inches long in one piece; join pieces with adhesive sealant in accordance with manufacturer's recommendations and instructions.
- D. Wall-Mounted Counters: Provide skirts, aprons, brackets, and braces as indicated on drawings, finished to match.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.

- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Verify that wall surfaces have been finished and mechanical and electrical services and outlets are installed in proper locations.

**3.02 PREPARATION**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

**3.03 INSTALLATION**

- A. Securely attach countertops to cabinets using concealed fasteners. Make flat surfaces level; shim where required.
- B. Attach plastic laminate countertops using screws with minimum penetration into substrate board of 5/8 inch.
- C. Seal joint between back/end splashes and vertical surfaces.

**3.04 TOLERANCES**

- A. Variation From Horizontal: 1/8 inch in 10 feet, maximum.
- B. Offset From Wall, Countertops: 1/8 inch maximum; 1/16 inch minimum.
- C. Field Joints: 1/8 inch wide, maximum.

**3.05 CLEANING**

- A. Clean countertops surfaces thoroughly.

**3.06 PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

**END OF SECTION 12 36 00**

**SECTION 13 34 19 - METAL BUILDING SYSTEMS****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Manufacturer-engineered, shop-fabricated structural steel building frame.
- B. Metal wall and roof panels including soffits and gutters and downspouts.
- C. Exterior doors, windows, overhead doors, and louvers.

**1.02 REFERENCE STANDARDS**

- A. AISC 360 - Specification for Structural Steel Buildings; 2022.
- B. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2019.
- C. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
- D. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
- E. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2021.
- F. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2023.
- G. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2021.
- H. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2019.
- I. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- J. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2020.
- K. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2023d.
- L. ASTM E96/E96M - Standard Test Methods for Gravimetric Determination of Water Vapor Transmission Rate of Materials; 2023.
- M. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength; 2023.
- N. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2020.
- O. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2020, with Errata (2023).
- P. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2018.
- Q. MBMA (MBSM) - Metal Building Systems Manual; 2019.
- R. SSPC-Paint 20 - Zinc-Rich Coating (Type I - Inorganic, and Type II - Organic); 2019.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Convene one week before starting work of this section.

**1.04 SUBMITTALS**

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data on profiles, component dimensions, fasteners.
- C. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections; wall and roof system dimensions, panel layout, general construction details, anchors and methods of anchorage, and installation; framing anchor bolt settings, sizes, locations from datum, and foundation loads; indicate welded

- connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.
- D. Samples: Submit two samples of precoated metal panels for each color selected, illustrating color and texture of finish.
  - E. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.
  - F. Designer's Qualification Statement.
  - G. Manufacturer's Qualification Statement: Provide documentation showing metal building manufacturer is accredited under IAS AC472.
    - 1. Include statement that manufacturer designs and fabricates metal building system as integrated components and assemblies, including but not limited to primary structural members, secondary members, joints, roof, and wall cladding components specifically designed to support and transfer loads and properly assembled components form a complete or partial building shell.
  - H. Erector's Qualification Statement.
  - I. Project Record Documents: Record actual locations of concealed components and utilities.

### 1.05 QUALITY ASSURANCE

- A. Designer Qualifications: Design structural components, develop shop drawings, and perform shop and site work under direct supervision of a Professional Structural Engineer experienced in design of this type of work.
  - 1. Design Engineer Qualifications: Licensed in the State in which the Project is located.
  - 2. Comply with applicable code for submission of design calculations as required for acquiring permits.
  - 3. Cooperate with regulatory agency or authorities having jurisdiction (AHJ), and provide data as requested.
- B. Perform work in accordance with AISC 360 and MBMA (MBSM).
- C. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
  - 1. Not less than three years of documented experience.

### 1.06 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Correct defective Work within a five year period after Date of Substantial Completion.
- C. Provide 10 year manufacturer warranty.
  - 1. Include coverage for exterior pre-finished surfaces to cover pre-finished color coat against chipping, cracking or crazing, blistering, peeling, chalking, or fading. Include coverage for weather tightness of building enclosure elements after installation.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Metal Buildings Systems:
  - 1. Basis of Design: Discovery Metal Buildings.
  - 2. Substitutions: See Section 01 60 00 - Product Requirements.

### 2.02 ASSEMBLIES

- A. Single span rigid frame.
- B. Primary Framing: Rigid frame of rafter beams and columns, canopy beams, and wind bracing.
- C. Secondary Framing: Purlins, and other items detailed.

**2.03 PERFORMANCE REQUIREMENTS**

- A. Installed Thermal Resistance of Wall System: as .
- B. Installed Thermal Resistance of Roof System: as indicated on drawings.
- C. Design structural members to withstand dead load, and design loads due to pressure and suction of wind calculated in accordance with applicable code.
- D. Provide drainage to exterior for water entering or condensation occurring within wall or roof system.
- E. Permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects, when subject to temperature range of \_\_\_\_ degrees F.
- F. Size and fabricate wall and roof systems free of distortion or defects detrimental to appearance or performance.

**2.04 MATERIALS - FRAMING**

- A. Structural Steel Members: ASTM A36/A36M.
- B. Structural Tubing: ASTM A500/A500M Grade B cold-formed.
- C. Plate or Bar Stock: ASTM A529/A529M, Grade 50.
- D. Anchor Bolts: ASTM A307, Grade A, with hot dip type for protective coatings.
- E. Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1; galvanized to ASTM A153/A153M.
- F. Welding Materials: Perform in accordance with AWS D1.1/D1.1M.
- G. Primer: SSPC-Paint 20 zinc rich.
- H. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
  - 1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
  - 2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.

**2.05 MATERIALS - WALLS AND ROOF**

- A. Steel Sheet: Hot-dipped galvanized steel sheet, ASTM A653/A653M, Designation SS (structural steel), Grade 33 (230), with G90/Z275 coating.
- B. Insulation: Batt glass fiber type, faced with reinforced white vinyl, ASTM E84 Class A, flame spread index of 25 or less where exposed, friction fit.
- C. Metal Building Type, Factory Applied, Vapor-Barrier Insulation Facings: Water vapor permeance no greater than 0.10 perm when tested in accordance with ASTM E96/E96M; flame spread index of 25 or less, and smoke developed index of 40 or less when tested in accordance with ASTM E84.
- D. Joint Seal Gaskets: Manufacturer's standard type.
- E. Fasteners: Manufacturer's standard type, galvanized to comply with requirements of ASTM A153/A153M, finish to match adjacent surfaces when exterior exposed.
- F. Sealant: Manufacturer's standard type.
- G. Trim, Closure Pieces, Caps, Flashings, Gutters, Downspouts, Rain Water Diverter, Fascias, and Infills: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

**2.06 COMPONENTS**

- A. Doors and Frames: Manufacturer's standard.
- B. Overhead Doors and Frames: Manufacturer's standard.

**2.07 FABRICATION - FRAMING**

- A. Fabricate members in accordance with AISC 360 for plate, bar, tube, or rolled structural shapes.
- B. Anchor Bolts: Formed with bent shank, assembled with template for casting into concrete.
- C. Provide wall opening framing for doors, windows, and other accessory components.

**2.08 FABRICATION - WALL AND ROOF PANELS**

- A. Flashings, Closure Pieces, Fascia: Same material and finish as adjacent material, profile to suit system.
- B. Fasteners: To maintain load requirements and weather tight installation, same finish as cladding, non-corrosive type.

**2.09 FABRICATION - GUTTERS AND DOWNSPOUTS**

- A. Fabricate of same material and finish as roofing metal.
- B. Form sections in maximum possible lengths. Hem exposed edges. Allow for expansion at joints.
- C. Fabricate support straps of same material and finish as roofing metal, color as selected.

**2.10 FINISHES**

- A. Framing Members: Clean, prepare, and galvanize to ASTM A123/A123M.
- B. Finishes:
  - 1. Exposed Coil-Coated Finish:
    - a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - 2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that foundation, floor slab, mechanical and electrical utilities, and placed anchors are in correct position

**3.02 ERECTION - FRAMING**

- A. Erect framing in accordance with AISC 360.
- B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing. Locate braced bays as indicated.
- C. Set column base plates with non-shrink grout to achieve full plate bearing.
- D. Do not field cut or alter structural members without approval.
- E. After erection, prime welds, abrasions, and surfaces not shop primed.

**3.03 ERECTION - WALL AND ROOF PANELS**

- A. Install in accordance with manufacturer's instructions.
- B. Exercise care when cutting prefinished material to ensure cuttings do not remain on finish surface.
- C. Fasten cladding system to structural supports, aligned level and plumb.
- D. Locate end laps over supports. End laps minimum 2 inches. Place side laps over bearing.
- E. Provide expansion joints where indicated.
- F. Use concealed fasteners.
- G. Install sealant and gaskets, providing weather tight installation.

**3.04 ERECTION - GUTTERS AND DOWNSPOUTS**

- A. Rigidly support and secure components. Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts.
- B. Apply bituminous paint on surfaces in contact with cementitious materials.
- C. Slope gutters minimum \_\_\_\_ inch/ft.



**3.05 INSTALLATION - ACCESSORY COMPONENTS IN WALL SYSTEM**

- A. Install door frames, doors, and overhead doors in accordance with manufacturer's instructions.

**3.06 TOLERANCES**

- A. Framing Members: 1/4 inch from level; 1/8 inch from plumb.
- B. Siding and Roofing: 1/8 inch from true position.

**END OF SECTION 13 34 19**

**SECTION 22 00 00 - PLUMBING****PART 1 - GENERAL****1.1 TERMS AND CONDITIONS**

- A. The Plumbing Contractor shall provide all specified and miscellaneous material and labor as required for a complete and operating plumbing system in accordance with these drawings and specifications and the Contract Documents.
- B. All work shall be in accordance with Florida Plumbing Code and all Local Codes and Requirements of local inspectors.
- C. The Notice to Bidders, Instructions to Bidders, General Conditions, Supplementary General Conditions, Contract Documents and drawings all are part of these specifications.
- D. The Contractor shall visit the site to familiarize himself with the existing conditions, the area in which the work is to be performed. If deemed necessary, investigate the subsoil conditions for excavation, prior to making a proposal.
- E. Any permits, acreage or tap-on fees, etc., inspection and test charges required for the plumbing work shall be secured and paid for by the Plumbing Contractor.
- F. The Plumbing Contractor shall be responsible for excavations performed under this contract, including backfilling and compaction, and replacement or pavement as required. Provide for temporary facilities as specified in General Conditions. Submittal shall include fixtures, valves and major items of equipment.
- G. The Plumbing Contractor shall submit six (6) copies of shop drawings or submittal data for approval in accordance with requirements of the general conditions. Submittal shall include fixtures, valves and major items of equipment.
- H. As used herein the following definitions shall apply: "Furnish" shall mean furnish and install; "Install" shall mean installation of items furnished by others.
- I. The drawings are diagrammatic only and are not intended to show minor details and exact locations. Locations of pipes, ducts, electrical raceways, switches, panels, equipment, fixtures, etc. shall be adjusted to accommodate the work to interferences anticipated and encountered. Lines, whose elevation cannot be changed shall have the right of way. Lines required to pitch shall have right of way over those which are not required to pitch. Larger lines shall have right of way over smaller lines. Plumbing Contractor shall coordinate his work with other trades and drawings to insure smooth progress of work. It shall be this Contractor's responsibility to call attention to any discrepancy in the drawings or specifications to avoid conflict. Plumbing in ceiling spaces shall be coordinated with ductwork.

- J. All work shall be performed in accordance with U.S. Department of Labor, Occupational Safety and Health Standards.
- K. The Plumbing Contractor shall refer to the General Conditions for provisions of temporary utilities required under this contract.
- L. DRAWINGS AND SPECIFICATIONS

## **1.2 DRAWINGS AND SPECIFICATIONS**

- A. The Plumbing Contractor shall provide all specified and miscellaneous material and labor as required for a complete and operating plumbing system in accordance with these drawings and specifications and the Contract Documents.
- B. The drawings shall also serve as work progress report sheets and the Contractor shall make any notations, net and legible, thereon daily as the work proceeds. The drawings shall be available for inspection at all times and shall be kept at the job site. Drawings shall include elevations of all buried work.
- C. Upon completion of the work, these record drawings shall be signed by the Contractor, dated, and turned over to the Owner.
- D. Connections to cold water and soil and waste lines shall be made at location as shown on the drawings.
- E. All fixtures, floor drains, flush valves and traps to be set plumb and level.
- F. Rough-in Piping: All fixtures shall be accurately roughed-in according to the manufacturer's installation dimension so that no offset adaptors flexible connection or other improvisations are necessary. All incorrect work shall be torn out and corrected and walls and floors patched.
- G. Supervision and Superintendence: The Contractor shall, during the progress of the work, maintain a competent superintendent, who shall not be changed except if he proves unsatisfactory to the Contractor or to the Architect. Efficient supervision shall be given to the work.
- H. Clean-up and Painting: In addition to the cleaning up required in the General Conditions, the Contractor shall, at the completion of the work, clean, polish, and/or wash all exposed items of materials, equipment, and fixtures in his contract so as to leave such items bright and clean.
- I. Sterilizing and Flushing Piping System: All water piping shall be sterilized with chlorine, 50 parts per million, and held for a 24-hour period, after which the system shall be flushed prior to being put into service. During the flushing of the system, all flush valves shall be thoroughly flushed out to insure the removal of sediment, pipe dope, etc., from water lines and flush valves removing such working parts of the flush valves as may be deemed necessary.

- J. Electrical Contractor shall make electrical connection to hot water heater.
- K. Guaranty: See General Conditions.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. All materials shall be new and of the best quality in the price range specified. Equipment and materials herein specified by trade name indicate standard desired and is not intended to restrict competition.
- B. All water piping shall be type "L" copper, with the type and manufacturer's name on each piece. Fittings shall be sweat solder wrought type copper or brass. Under no circumstances shall notching or mitering be permitted. Appropriate fittings shall be used for all turns, joints, or other arrangements.
- C. Sanitary soil, waste and vent piping shall be Schedule 40 PVC-DWV pipe and fittings conforming to Table 505 of Volume II of the Standard Building Code and ASTM D 2665-73. Pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign matter and other defects. The pipe and all fittings shall be marked with the nominal pipe size and the symbol PVC.
- D. Use only Solvent Cements meeting the requirements of ASTM D 2564-72 for solvent cements for PVC-DWV plastic pipe and fittings. Do not use thinners in conjunction with cement, or combination or aerosol cements.
- E. Escutcheons: Use chrome-plated, spring type on all pipe passing through walls, ceilings or floors in finished areas. Those at floor shall be cast brass, chrome-plated, with set screw.
- F. Joint compound: Use key-tite, blue seal or equal.
- G. Stops: Use compression type, chrome-plated, angle or straight way pattern on all fixtures, hot and cold supply. On service sinks use brass gate valve as specified.
- H. All hot water lines, including tees, elbows and crosses, etc. and all cold water lines located within 8-feet of the water heater shall be insulated. Insulation shall be rigid fiberglass piping insulation, 1-½" thick with an R-value of 3.5 per inch thickness. Fiberglass piping insulation shall have a white vapor barrier jacket. Jacket shall be foil-scrim-kraft laminate equivalent to Owens Corning 25 ASJ. Jackets shall be vapor sealed with continuous self-sealing lap strips. End joints shall be similarly sealed factory furnished butt strips with pressure sealing adhesive. Where required miter fiberglass piping insulation to form fittings, secure with number 20 gauge annealed steel wire. Seal all joints and seams with tape as recommended by manufacturer.

## 2.2 HANGARS, INSETS, AND SUPPORTS

- A. All piping in building shall be rigidly supported from the building structure by means of approved hangers and supports. Piping shall be supported to maintain required grading and pitching of lines, to prevent vibration, and to secure piping in place and shall be so arranged as to provide for expansion and contraction.
- B. Spacing of hangers shall be not greater than the following:
1. Horizontal, PVC pipe – 4'-0" o.c.
  2. Copper Tubing: 2" and larger – 10'-0" o.c., 1-½" and smaller, 6'-0" o.c.
  3. Cast Iron: At every hub and 5'-0" maximum.
- C. In addition, provide 2 hangers at each turn in horizontal line approximately 2 feet from fitting.
- D. All hangers to be Fee and Mason, of the type listed below. Blw-Knox, Grinnell, or Modern of the same design will be acceptable. Copper water lines shall be supported only with copper hangers and straps.
- E. Vertical runs of pipe shall have riser clamps or collars for support.
- F. Pipe Anchors for Rough-in Use: Use "rapid rough" products as manufactured by Rapid Rough, P.O. Box 9052, Greensboro, North Carolina 27408 (UL listed). Use these for anchoring rough-in of all hot and cold water connections for all lavatories, sinks, and other wall-connected fixtures to hold pipes securely in alignment according to manufacturer's rough-in measurements. Remove these devices after the wall is built around pipes.
- G. Valves: Gate, globe and check valves shall be as manufactured by Jenkins, Walworth, Fairbanks or Powell and selected in accordance with the following table:
1. Gates:
    - a. Jenkins Figure 1242
    - b. Fairbanks Figure 0282
    - c. Powell Figure 1821-A
  2. Checks:
    - a. Jenkins Figure 122
    - b. Fairbanks Figure 0680
    - c. Powell Figure 1923
  3. Globes:
    - a. Jenkins Figure 1200
    - b. Fairbanks Figure 0582
    - c. Powell Figure 1826

- H. Unions in screwed pipe shall be ground joint with brass seat. Unions in copper and brass shall be 125# ground joint.
- I. Air Chambers: Provide at each fixture, not less than 18" in length and of the same diameter as the supply.

### **2.3 DRAINAGE AND VENT LINES**

- A. Soil, waste and vent stacks of sizes shown shall be run as indicated on the drawings and shall extend above the roof. All extensions above the roof shall be made according to Code and as detailed on the drawings. Soil, waste and vent stacks shall be run in chase and suspended above ceilings where indicated. Vertical vent pipes shall be connected together into one main vent stack or riser above the fixtures and vented as indicated.
- B. Branch vent lines shall be free from drops or sags and be graded and connected so as to drip back into the soil or waste pipe by gravity. Where vent pipes connect to the horizontal soil or waste pipe, the vent branch shall be taken off above the centerline of the pipe and the vent pipe extended vertically or at an angle of 45 degrees to the vertical before off-setting or connecting to vent.
- C. Vents from any fixture or line of fixtures, when connected to a vent line serving other fixtures, shall be extended at least 6" above the flood level rim of the highest of such fixtures to prevent use of the vent line as a waste.
- D. Horizontal drainage piping shall be installed in practical alignment at the grade as shown on the drawings, but in no case less than a uniform grade of 1/4" per foot for 3" pipe and smaller; not less than 1/8" per foot for 4- to 8-inch pipe.
- E. Fittings: Changes in pipe size on soil, waste and drain lines shall be made with reducing fittings or recessed reducers. All changes in direction shall be made by the appropriate use of 45-degree wyes, half wyes, long-sweep 1/4 bends; 1/6, 1/8 or 1/16 bends, except that sanitary tees may be used in soil and waste lines when the change in direction or flow is from the horizontal to the vertical, and on the discharge from water closets. Where it becomes necessary because of space conditions to use short-radius fittings in any other location, the approval of the Architect shall be obtained before they are installed. No change in direction of flow greater than 90 degrees shall be made. Where different sizes of drainage pipes or pipes and fittings are to be connected, standard increasers and reducers of proper size shall be used. Reduction of the size of drainage piping in the direction of flow is prohibited.
- F. Union connections: Slip joints will be permitted only in trap seals or on the inlet side of the traps. Tucker or Hub drainage fittings shall be used for making union connections wherever practicable. The use of long screws and bushings is prohibited.
- G. Drilling and tapping of house drains, soil, waste, or vent pipes, and the use of saddle hubs and bands are prohibited.

- H. Cross-connection on any fixtures, devices, or construction which will permit backflow connections between a water distribution system and any part of the drainage system shall not be installed.
- I. Only new piping will be allowed for waste piping. Waste pipe having paint, varnish or putty will not be acceptable.

## 2.4 JOINTS

- A. All piping shall be made permanently gas and watertight. Any fitting or connection which has an enlargement, chamber, or recess with a ledge or shoulder or reduction of the pipe area that offers an obstruction to flow through the pipe shall not be installed.
- B. PVC-DWW Waste and Vent Pipes: Installation and joining technique shall be as described in ASTM D 2665-73. All joints shall be square cut and all pieces shall be seated to the bottom of the fitting socket. In no case shall stress be applied to the joint for offsetting the pipe. No combination or aerosol cements shall be used. All fittings and cements shall bear the seal of approval of the NSF. All defective joints and fittings shall be removed and replaced.
- C. Soldered or Bronzed Joints: Joints 1-1/4" and larger shall be made with silver solder, for joints less than 1-1/4" and all valves (regardless of size) use 95/5 solder. Also, use a non-corrosive paste flux in accordance with manufacturer's instructions. All joints shall be thoroughly cleaned with emery cloth and reamed out before assembly. Acid core solder will not be permitted. Care shall be taken to prevent annealing of fittings and hard drawn tubing when making connections.
- D. Test: Soil pipe shall be filled with water to the roof and shall be gas and water tight. Water lines shall be tested with 100 psi of pressure for two hours without loss of pressure. This test shall be approved by the plumbing inspector.
- E. Plumbing Contractor shall be responsible for all openings for his work. Chases, sleeves, insert, etc., shall be located and General Contractor advised of any framing, furring, cutting, recessing, etc. required. At the proper time as the work progresses to avoid damage to completed work or others, and at all times cooperate with the General Contractor and the other trades to expedite the work. Where all plumbing pipes pass through walls or floors, use galvanized pipe sleeve of size large enough for insulation. Furnish sleeves to the General Contractor and locate them properly in time for building them in place as the building progresses.
- F. Since the plans are diagrammatic only and not intended to show all details, the Plumbing Contractor shall make any necessary adjustments or changes to avoid beams, fittings, piers, vents, columns or other obstructions without additional cost to Owners.
- G. The entire system shall be accepted as a unit. There will be no partial acceptance.
- H. Remove all debris, rubbish and leftover materials resulting from the plumbing work. Excess dirt shall be distributed on lot, or removed as directed by the Architect.

## **2.5 FOAMED PLASTIC PIPE INSULATION**

- A. Foamed plastic tubing shall have a minimum density of 4.5 pcf. Thermal conductivity shall not exceed 0.28 at 75 degrees F mean temperature.
- B. Apply and secure insulation and seal all joints with Armaflex 520 adhesive so as to maintain a continuous vapor barrier. On piping, do not split the insulation longitudinally except at branch fittings where it cannot be avoided.

## **2.6 DOMESTIC WATER HYDRANTS**

- A. Hydrants shall be as listed for each item in the Plumbing Fixture Schedule as shown on Sheet P-001.

## **2.7 GRINDER PUMP**

- A. See civil documents for grinder pump lift station.

## **PART 3 - EXECUTION**

### **3.1 MATERIALS INSTALLATION AND STORAGE**

- A. Workmanship to be of first rate quality, performed by experienced and skilled craftsmen.
- B. All piping to be concealed in finished areas, either in pipe space provided, or in walls. Piping to be fit snugly to walls or ceilings.
- C. All plumbing work shall be coordinated with the building construction, so all will be finished together.
- D. Close and protect open ends of piping until final connections are made. Such closing shall be made with fittings which cannot be easily removed. Caps or plugs shall be required at all times during construction so that no pipes are left open at the end of any day's work, even though continuation is expected the next day.
- E. Piping shall extend to all fixtures, outlets, and equipment from the main service. Cold water system shall be installed with the fall toward the shut-off valve. Outlets shall be capped or plugged as shown on the drawings and left ready for future connections. Mains, branches and runouts of hot and cold water piping shall be as indicated on the drawings. Pipe shall be cut accurately to measurements established at the building by the Contractor, and shall be worked into place without springing or forcing. Care shall be taken when cutting so as not to weaken the structural portion of the building. Piping above the ground shall be run parallel with lines of the building unless otherwise shown or noted on the drawings.



- F. Service pipe, valves and fittings shall be kept a sufficient distance from the other work and other services to permit not less than 1-½" between finish covering and other work and not less than 1-½" between finish covering and the different services, except where detailed otherwise on drawings.
- G. Changes in pipe sizes shall be made with reducing fittings. Use of long screw and bushings will not be permitted. Allowance shall be made throughout for expansion and contraction of pipe. Horizontal runs of pipe over 50 feet in length shall be anchored to wall or to the supporting construction about midway the run to force expansion, evenly divided, toward the ends.
- H. All water mains shall be pitched at least 1" in 25 feet toward drain valves, and branches shall drain toward fixtures. The piping installation shall be arranged so that the entire system can be drained through accessible valves at low points or fixture supply connections.
- I. Unions shall be installed at the connections to each piece of equipment to allow removal of equipment without dismantling connected piping.
- J. Plumbing Contractor shall be held responsible for any damage to any work, installed by others, caused by leaks or improper installation of the piping system. The Contractor shall coordinate his work with that of the heating and Electrical Contractor and, where interferences occur, shall procure approval from the Architect before installation of the work.
- K. All fixtures shall be free from imperfections, true as to line, angles, curves, color. Installations shall have smooth watertight joints, complete in every respect. All fixtures shall be in perfect working order.
- L. It shall be the responsibility of this Division to guarantee proper selection and coordination of all fittings and parts relating to each fixture.
- M. Wall hydrants shall be mounted flush to exterior wall and all interior domestic water piping serving hydrants shall be concealed in wall.

### **3.2 INSULATION FOR PIPING**

- A. Insulate all piping with insulation with material as indicated in Part II.

**END OF SECTION**

## **SECTION 23 00 00 - HVAC**

### **PART 1 - GENERAL**

#### **1.1 TERMS AND CONDITIONS**

- A. The Contractor shall refer to the plans and General Conditions, all of which are a part of the Heating and Air Conditioning System Specifications.

#### **1.2 DRAWINGS**

- A. The drawings and specifications are complementary and what is called for in one shall be as binding as if called for in both.

#### **1.3 AS INSTALLED DRAWINGS**

- A. The Mechanical Contractor shall familiarize himself with general construction portion of the plans, especially the foundation plan and foundation wall and pier layout. If changes are made in the routing of pipe, ducts or the location of apparatus from that shown on the drawings. The Contractor shall furnish "as built" drawings to the Architect and Owner, showing the true location of pipes, ducts, or apparatus.

#### **1.4 CODES**

- A. All work shall conform to the requirement of the International Building Code, latest amendments, and the requirements of the local inspector.
- B. Where applicable, materials for electrically operated apparatus shall have Underwriter's Laboratory approval or UL Re-examination listing.

#### **1.5 OBJECTIONABLE NOISE AND VIBRATION**

- A. Mechanical and Electrical equipment shall operate without objectionable noise or vibration, as determined by the Architect.
- B. If such objectionable noise or vibration should be produced and transmitted to occupied portions of the building, the Contractor shall make the necessary changes and additions, as approved, without extra cost to the Owner or Architect.

#### **1.6 SCOPE OR WORK**

- A. The Scope of Work is a brief outline of the work, including in the Heating and Air Conditioning Contract, but is not intended to cover every item in detail.
  - 1. Ducts, fans, etc.

2. Insulation.
3. Automatic control system.
4. Cutting and patching.
5. Wiring.
6. Painting.
7. Air conditioning and heating units.
8. Bases and supports for all equipment.
9. Coil condensate drainage piping.
10. Refrigerant piping and insulation.

#### **1.7 INSTRUCTION OF OPERATING PERSONNEL**

- A. The Contractor shall instruct the maintenance personnel in the proper operation of each piece of apparatus, as well as the complete system.
- B. All services required of factory representatives or specialized servicemen to check, test, or start, or put the system into proper operation shall be supplied by the Contractor.
- C. Three (3) bound sets of instruction books for the operation, repair, or maintenance of the equipment shall be given to the Architect. A copy of the transmittal letter to the Architect shall be forwarded to the Engineer.

#### **1.8 OWNER'S REQUIREMENTS**

- A. This Contractor shall work closely with the Owners at all times during the installation of the heating and air conditioning equipment.

#### **1.9 ELECTRICAL VOLTAGE**

- A. The electrical system will be as shown on the drawings.

#### **1.10 GUARANTEE**

- A. All work on this project to be in accordance with the guarantee stipulated under the General Conditions.
- B. At the completion of the job the Contractor shall send a letter to the Architect stating that he has personally checked the control system observed its operation and found the complete system installed and functioning satisfactorily and in accordance with the plans and specifications.

#### **1.11 EXISTING SERVICES**

- A. When encountered in work, protect, brace, support existing active sewer, water, gas, electric, or other services, where required for proper execution of work.

**PART 2 - PRODUCTS****2.1 EQUIPMENT IDENTIFICATION AND LABELING**

- A. Attach aluminum name plate having etched lettering and black enameled background or engraved laminated plastic plate with self-tapping screws to the cover, or in a prominent location, on each safety switch, motor starter and on the corresponding apparatus served. Plate shall identify the equipment or equipment being served.

**2.2 ELECTRICAL CONNECTIONS**

- A. The Mechanical Contractor shall furnish and install all electrical connections to HVAC equipment from disconnect switches installed by Electrical Contractor.
- B. Each new motor or apparatus shall have a disconnect switch as noted on the drawings, located where indicated. A single pole switch shall be used for small motors less than 1/6 h.p. and requiring 120-volts.
  - 1. Wires:
    - a. Power - Type THW
    - b. Control and ground - Type TW
  - 2. Conduit:
    - a. Electrical Metallic Tubing (EMT)
  - 3. Connection to motors or vibrating equipment:
    - a. Dry Areas - Flexible steel conduit
    - b. Damp Areas - Flexible watertight conduit
  - 4. Outlet Box:
    - a. Exposed - Cast
- C. All motors shall have thermal overload protection for the full rating of the motor. Motors 5 h.p. and larger shall have thermal protection on each phase.
- D. All equipment shall be grounded to the conduit system. Wires shall be color-coded the same as required for the electrical system of the building.

**2.3 MATERIALS AND APPARATUS**

- A. The following describes the materials and apparatus required for the project and is intended to describe quality and type of equipment. Any miscellaneous equipment

required for proper operation, mounting or support, but not specifically mentioned, shall be furnished at no additional cost to the Owner or Architect.

- B. All materials shall be new and of size and capacity as shown on the drawings.
- C. Specific trade names or catalog numbers of manufacturers are mentioned in the specifications or drawings to establish a degree of quality and not intended to limit competition.
- D. Where catalog numbers are used, they refer to the first manufacturer listed under "make".
- E. Before any material is ordered, the Contractor shall submit a complete list of materials in six copies and six (6) sets of cuts or certified prints of the apparatus he proposed to use. Each cut or drawing shall be clearly marked, as to job name, catalog number, size, capacity, materials, etc. of the equipment submitted, and shall bear a note stating that the Contractor has checked the material and found it to meet the requirements of the specifications. Otherwise, the Contractor shall install the materials as specified.
- F. Specified modification of apparatus shall be noted on submittals. Capacities, electric requirements, etc. of submitted material at condition shown on the drawings or specifications shall be shown clearly.
- G. All material lists for approval shall be submitted at one time within 30 days after award of the contract.
- H. Partial lists will not be acted upon.
- I. All shop drawings shall be submitted at one time.
- J. Where the phrase "or equal" appears, it shall mean "equal material, as previously approved by the Architect."
- K. Where any special make of fixture or materials are specified by plate number or trademark, deliver to the building with original labels or other identification marks placed thereon by the manufacturers and do not remove until inspected and approved.

## **2.4 SLEEVES**

- A. All pipes passing through walls, floors, or ceilings shall pass through pipe sleeves made from schedule 40 steel pipe.

## **2.5 MOTORS**

- A. Motors ½ h.p. and larger shall be ball bearing, with hand-operated grease cups, or alemite hydraulic lubriguard fittings. Motors having belt drive shall be mounted on an adjustable motor mount.

- B. All motors shall have circuit breaker and thermal overload protection, sized for the full load rating of the motor, and low voltage protection.
- C. Motors shall be rated at 40 degrees C temperature rise, and 40 degrees C ambient temperature.
- D. Make: Westinghouse, General Electric, Wagner Electric, or equal.

#### 2.06 VIBRATION CONTROL EQUIPMENT

- A. Vibration isolators shall be used for each fan, motor, blower, etc. to limit the transmission of vibration to the surrounding structure to a maximum of 10% or an efficiency of 90%.
- B. The Contractor shall submit, along with the cuts of the isolators, a statement showing the vibration control equipment used for each piece of equipment and the efficiency of the mounting system.

#### 2.07 DUCTWORK

- A. All ducts shall be the size as shown on the drawings, unless structural conditions or head room makes this impossible. Changes in shape of duct shall be made at an angle to 20 degrees or less. Elbows shall have an inside radius of 1-½ times the duct width. If this is not possible or, if shown on the drawings, turning vanes shall be used.
- B. No pipe or conduit shall pass through duct without written permission of the Architect.
- C. Volume or splitter dampers shall be installed where shown and necessary to control the air flow.
- D. Ducts shall be made of galvanized steel gauge in accordance with the recommendations of the latest edition of the ASHRAE guide. Flexible duct may be used on individual diffuser runs which do not exceed 5 feet in length.
- E. Ducts larger than 30" shall be cross broken.
- F. All traverse joints shall be fastened together with pocket slip joint and sheet metal screws on 8" centers.

#### 2.08 TURNING VANES

- A. Style: Airturns with mounting plates.
- B. Make: Barber-Colman, Tuttle & Bailey, Carnes, or equal.
- C. Turning vanes shall be used on all duct turns.

#### 2.09 FLEXIBLE DUCT CONNECTIONS

- A. Flexible fabric connection shall be used on duct connection to apparatus to prevent equipment vibration from being transmitted to the duct work. Materials shall be fire-resistant and UL-approved. Flexible connections shall be made on both the supply and return ducts for each air-handling unit.
- B. Flexible fabric: Ventfab 20 oz. Waterproof and fire-resistant, UL-approved.
- C. Make: Ventfabrics, Inc. or equal.

#### 2.10 DUCT INSULATION

- A. Provide duct liner and insulation as noted on drawings.

#### 2.11 CONDENSATE DRAIN

- A. Style: Schedule 40 PVC except provide copper in all return air plenum spaces.

#### 2.12 TEMPERATURE CONTROL SYSTEM

- A. Refer to sheet M001.

#### 2.13 HEATING AND COOLING UNITS

- B. Furnish and install as indicated on the drawings and schedule on the drawings.

#### 2.14 EXHAUST FANS

- A. Furnish and install as indicated on the drawings and schedule on the drawings.

### PART 3 EXECUTION

#### 3.1 CLEANING SYSTEM

- A. Upon the completion of each system, the system and all connected apparatus shall be flushed and cleaned to remove oil, grease, sand or other impurities or foreign matter.
- B. Condensate shall be wasted until it appears clean.
- C. New ducts shall be cleaned of all foreign matter prior to acceptance of the project by the Owner.

#### 3.2 CUTTING AND PATCHING

- A. The Contractor shall do all cutting and patching required for the proper installation of his equipment. If cutting will harm the structure or mar the appearance, consult the Architect for approval before proceeding. Patching shall meet the approval of the Architect.
- B. Patching in the building shall match the existing surface as near as possible.

### 3.3 TESTING

- A. The Contractor shall adjust and calibrate each piece of equipment, so it will function properly with the completed system. After the system is complete, it shall be test operated under normal conditions. The Contractor shall run the system through all normal operating cycles or sequences. Any apparatus found not functioning properly shall be adjusted or replaced and the test repeated until proper performance is attained.
- B. If the performance of the system or any apparatus is found questionable by the Architect, the Contractor shall make all tests required to verify its performance. Where possible, the tests shall be made as recommended by standard test Codes or standard procedures acceptable to the industry.
- C. Copies of all data collected, as well as the results, shall be supplied to the Architect, along with a written description of the test procedure.
- D. Leaks or defects shall be repaired by re-making the joint or replacing defective equipment.
- E. Duct system shall be balanced for proper distribution of air by providing an independent test and balance. After final adjustment, the Contractor shall measure the system in the presence of the Architect, and furnish a report stating the measured cfm at each outlet.
- F. Electrical insulation leakage test using a megohmmeter, shall be made on all power and control wiring installed by the Contractor. All apparatus and wiring devices shall be in place when test is made.
- G. All apparatus, and labor necessary to make the specified tests during installation, or to make performance verification tests, shall be furnished by the Contractor.
- H. The Architect shall be given notice prior to starting the tests so they may be witnessed.
- I. Before requesting final inspection, the Contractor, or an Officer of the Contracting Company, shall personally inspect the system to check the operation, to check the quality of workmanship and to see that all items have been completed, including cleaning, painting and labeling, in accordance with the intent of the plans and specifications. After he has satisfied himself that the installation is complete, he shall state in a letter to the Architect that he has checked the installation, that it is complete and that it is ready for final inspection.

### 3.4 NOTICE OF TEST

- A. The Contractor shall make preliminary tests and provide independent test and balance to be sure the systems are tight and conform with the tests as stated above. After he is sure the tests are satisfactory, he shall notify the Architect that the test is ready for inspection. The Architect will then arrange a time for the test to be demonstrated.



### 3.5 PAINTING

- A. Equipment furnished by the Contractor in a finished painted condition shall be clean and free from scratches, blemishes, or rust spots. If not, it shall be cleaned or repainted.
- B. This Contractor shall paint all materials and apparatus furnished or installed by him on the project. This includes all rooftop and side wall exhaust fan hoods. Color as selected by the Architect.
- C. The Contractor shall paint new pipe and/or insulation so designated, with colors to follow the National Color Coding recommendations.
- D. The following color scheme for other items shall be used:
- E. Piping, conduit, equipment supports, valve body – Black H-5.
- F. Mounting Boards – Lt. Tan H-28
- G. Valve handles, operating handles – Orange 1151.
- H. Switches, starters, gutters, or machinery bases – Dark Grey.
- I. Bare ferrous metal – Black Asphaltum.
- J. Make: Rust Oleum, Sherwin-Williams, Glidden or equal.
- K. Do not cover nameplates, exposed threads, wrench marks or other breaks in galvanized surfaces shall be covered with red lead and given 2 coats of paint.
- L. All canvas-coated insulation shall be given 2 coats of sizing in preparation for painting.

**SECTION 26 00 00 - ELECTRICAL****PART 1 GENERAL****1.1 TERMS AND DEFINITIONS**

- A. Terms: The following definitions of terms are applicable to the Electrical Drawings and Specifications.
1. Provide: As used herein shall mean "furnish, install and connect complete".
  2. Wiring: As used herein shall mean "wire or cable, installed in raceways with all required boxes, fittings, connectors and accessories, completely installed".
  3. Work: As used herein shall be understood to mean the materials completely installed, including the labor involved.
  4. Power Wiring: Wiring which supplies the electrical current, which flows through a connected motor.

**1.2 DRAWINGS AND SPECIFICATIONS**

- A. The Contractor shall familiarize himself with the architectural, structural, and mechanical drawings and specifications and shall coordinate and adapt his work to the building as required by these drawings and specifications.
- B. The equipment, conduit and device locations are approximate and any changes to clear obstructions shall be made as approved by the A/E at no additional cost to the Owner and any work to complete the system, or which may be fairly implied, shall be provided.
- C. The electrical drawings are generally diagrammatic design drawings and not intended to indicate all the details of the work to be performed.
- D. The electrical drawings and specifications shall jointly govern the installation. Any conflicts, discrepancies, or variances shall be called to the attention of the A/E for remedial instructions before the work is installed.

**1.3 SUBMITTALS**

- A. Shop Drawing List: Submit six (6) sets of shop drawings and/or schedules of the following equipment for review:
1. Safety Switches and Motor Starters
  2. Lighting Fixtures
  3. Wiring devices (receptacles, switches, etc.)
  4. Control devices (timeclocks, photocells, relay panels, etc.)
  5. Fire Alarm shop drawings and devices
- B. The following items, as a minimum, shall be turned over to the A/E for the Owner at the time final inspection is held:
1. Certificates of Inspection and Approval from authorities having jurisdiction.

2. Written Guarantee.
3. One complete set of shop drawings, including a copy of all data prepared by manufacturers detailing operation and maintenance instructions on all equipment requiring maintenance.

#### **1.4 APPARATUS AND OTHER TRADES**

- A. Install all manual and magnetic starters and contactors that are not integral with equipment, including those furnished under other divisions.
- B. Mechanical equipment control devices, such as thermostats, firestats and similar devices for equipment controlled by magnetic starters and contactors, are to be furnished and installed under another division. The power wiring provided under this division for equipment not controlled by magnetic starters or contactors shall also include wiring through manual line voltage control devices, such as thermostats and firestats, furnished and mounted under another division.
- C. Provide all power wiring to equipment as shown on the drawings and according to approved wiring diagrams furnished by the respective trades and provide safety switches or motor starters as noted on the electrical drawings. Power wiring shall include correct phase connections for proper motor shaft rotation and shall include wiring through all control devices furnished under another division. Electrical Contractor to verify and coordinate exact requirements with the respective trades.

#### **1.5 CODES ORDINANCES, PERMITS AND FEES**

- A. Codes and Ordinances:
  1. The installation included under this Division shall comply with the latest amended editions of the National Electrical Code and the Electrical Code of the municipality having jurisdiction.
- B. Permits and Fees:
  1. Obtain and pay for all taxes, fees, permits and licenses, and give all notices, pay all fees, and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn or specified.
  2. Deliver to the A/E for the Owner the official receipts of the proper authorities certifying that all taxes, fees, permits and licenses to which the work under this Division is subject have been paid.
  3. Furnish the A/E (for the Owner) with certificates of inspection and final approval from all authorities having jurisdiction.

#### **1.6 FINAL TEST AND ACCEPTANCE OF COMPLETE INSTALLATION**

- A. Distribution Equipment Test:
  1. In general, tests shall determine whether circuit breaker trip devices are functioning properly and are correctly adjusted; control and interlock systems are

performing as specified; contact surfaces and joints in switches and circuit breakers have a minimum electrical resistance; all bolted connections are tight and bus bars properly braced

2. In general, the bus duct test shall determine whether the insulation resistance is within limits and that all bolted joints are properly braced.

B. System Tests:

1. Upon completion of the work, test the individual systems, including all feeders, service branches, outlets, lighting, motors, apparatus and appliances for operation.
2. Provide all instruments, labor and materials required by the A/E for any essential intermediate and final test designated. Tests shall indicate full compliance with specifications, drawings and applicable codes.
3. These tests shall not alter the Contractor's guarantee of the equipment. All work and materials found to be in non-compliance with the Contract Documents shall be replaced and re-tested by the Contractor at no additional cost to the Owner.

C. Guarantee and Review:

1. The electrical installation shall be made by competent mechanics under the supervision of a foreman, all of whom shall be duly certified by local authorities.
2. Furnish the A/E for the Owner a written guarantee, countersigned by the General Contractor, stating that if any workmanship or material executed under this Division proves defective within one (1) year after final acceptance, such defects and all other work damaged thereby shall be made good by him without charge.

## PART 2 GENERAL

### 2.1 IDENTIFICATION AND NAMEPLATES

- A. Provide nameplates for the equipment as scheduled with the designation shown on the drawings etched on the plate along with the supply voltage rating to distribution panel and branch circuit panel mains.
- B. Nameplates shall be white core "bakelite" with surface color and letter height as specified herein. Letter shall be block style.
- C. Nameplates for equipment from the non-essential (normal) supply voltage shall be black and equipment served from the essential (emergency) supply shall be red. Equipment served only by the emergency alternator shall be yellow.
- D. Schedule: The following letter size shall be provided for each piece of following equipment.
  1. Branch Circuit Panelboards  $\frac{1}{4}$ "
  2. Distribution Panelboards  $\frac{1}{4}$ "
  3. Circuit Breakers in Distribution Panelboards  $\frac{3}{16}$ "
  4. Safety Switches and Motor Starters  $\frac{3}{16}$ "
  5. Individually Enclosed Breakers  $\frac{3}{16}$ "
  6. Time Switches  $\frac{3}{16}$ "

## 2.2 RACEWAYS

### A. Definitions:

1. Concealed Conduit: Conduit installed above suspended ceilings or within new walls.
2. Exposed Conduit: Conduit exposed to view.

### B. Protection: Secure conduits in place and protect to prevent damage to the work during construction. Plug ends of all conduit runs with cork, oakum, or "Push-Pennies" to avoid filling with mortar and debris.

### C. Electrical Metallic Tubing:

1. Electrical metallic tubing shall be of best quality steel, of standard pipe size, smooth inside and out, and shall be hot-dipped galvanized.
2. All connectors and couplings for electrical metallic tubing shall be of the all steel, raintight, compression type or of the all steel, concrete tight, set screw type.
3. All electrical metallic tubing entering panel cabinets, outlet boxes, pull boxes or equipment enclosures shall be provided with an all steel Appleton, T & B, RACO, or Steel City insulated throat connector or insulating bushings added to the connector.
4. Electrical metallic tubing installed in outdoor locations (exposed to weather) shall be provided with raintight, compression connectors and couplings.

### D. Liquidtight Flexible Conduit: Shall be PVC jacketed flexible metal conduit.

### E. Flexible Metal Conduit: Shall be hot-dipped galvanized steel conduit.

### F. Non-Metallic Conduit:

1. Material: Type 40, heavy wall rigid, polyvinyl chloride conduit.
2. Accessories: Fittings, couplings and bends shall be of the same manufacture as conduit.

## 2.3 WIRE AND CABLE

### A. Quality Assurance:

1. Standards: Specified conductor gauge sizes refer to American Wire Gauge.

### B. Color Coding:

1. 208/120 volts, 3 , 4-wire system: Ungrounded conductors: 1 black, 1 red and 1 blue. Ground (neutral) conductor: 1 white (or gray). Grounding conductors shall be green.
2. Branch circuit wiring (#8 and smaller) shall be color coded by continuous insulation color and feeders and services (#6 and larger) shall be color coded at all junction or pull points (except LB's or LBD's) using color markers or plastic tape manufactured for the purpose.

## C. Conductors:

1. Conductor Material: Conductors shall be copper, 98.5% conductivity.
2. Insulation Type: Except as otherwise noted on the drawings or specified herein all wire shall be 00 volt, N.E.C. Type "THW", "THHN-THWN" or "XHHW".
3. Minimum size: No wire shall be smaller than No. 12 unless so noted on the drawings or specified herein.

## D. Accessories:

1. Wire Joint shall be screw-on wire connector (wire nut).
2. Tap Connectors shall be H-Type compression tap and shall have insulating covers.
3. Two-way Cable Connectors shall be tin plated, solid copper, long barrel compression type.
4. Cable lugs shall be tin-plated, solid copper, long barrel, two-hole compression type.
5. Heat Shrinkable Cable Insulation Sleeves shall be installed over all two-way connectors after the connection is made.

## E. Preparation:

1. Lubricant: No grease, oil or lubricant other than powdered soapstone or pulling compound, UL listed and compatible with conductor insulation, shall be used to facilitate the pulling of wires.
2. Raceway: Raceways shall be free of concrete, moisture or foreign matter. Raceways shall be swabbed before pulling wire.

**2.4 OUTLET BOXES AND JUNCTION BOXES**

## A. Job Conditions:

1. Protection: Anchor boxes to formwork. Provide protection to prevent entry of concrete.
2. Sequencing, Scheduling: Location of outlets shown on the drawings are relative and approximate. Exact locations shall be determined on the job and the outlets set according to architectural drawings, dimensions, and building conditions. The right is reserved to change the exact location of any switch, ceiling outlet or other outlet before it is permanently installed.

## B. Outlet Boxes and Junction Boxes:

1. Standard Outlet Boxes and Junction Boxes and covers shall be galvanized steel not less than 1/16 thick, adapted to use and location, kind of fixtures to be used, and number, size and arrangement of conduits connecting thereto.
2. Ceiling Outlet Boxes:
  - a. Boxes shall be 4" octagonal or 4-11/16" square when required due to number of wires.
  - b. Provide 3/8" fixture studs where required.
  - c. Outlet boxes in the slab shall be 4" deep minimum. Provide plaster ring and cover where required.

3. Wall Outlet Boxes (Flush Mounted):
  - a. Concrete Block Walls: Outlet boxes shall be 2-1/8" deep, 4" square box, with raised 4" square-cut device cover through block. Masonry boxes 3- 1/2" deep (minimum) may also be used for concrete block walls. Note: Route conduit in block void to outlet box.
  - b. Sheet Rock Walls: Outlet boxes shall be 2-1/8" deep, 4" square box with raised, 4" square device cover.
  - c. Concrete Walls and Columns or Stucco/Plaster Walls: Outlet boxes shall be 2-1/8" deep, 4" square box with raised, 4" square device cover.
  - d. Concrete Block Walls with Metal Furring and Sheet Rock: Outlet boxes shall be 2-1/8" deep, 4" square box with 4" square extension ring through block of sheet rock. Note: Route conduit in block void to outlet box.
  - e. Tile Walls: Similar to sheet rock walls except with 1" (minimum) raised, 4" square-cut tile wall device cover.
- C. Outlet Boxes (Exposed Conduit):
  1. Outlet boxes or junction boxes used with exposed conduit shall be 2-1/8" deep, 4" square box with 1/2" raised square cover.
- D. Where more than two (flush or surface mounted) switches or receptacles occur at the same location, 2-1/2" deep gang boxes with raised gang box covers shall be used.
- E. Junction Boxes: Junction boxes shall be provided with blank covers.
- F. Pull Boxes:
  1. Pull boxes shall be not less than the minimum size required by the National Electrical Code and shall be constructed of code-gauge sheet steel.
  2. Pull boxes shall be furnished with removable screw-fastened covers. Where several feeders pass through a common pull box, the feeders shall be tagged to indicate the electrical characteristics, circuit number and panel designation.
- G. Face Plates:
  1. Material: Face plates shall be as follows:
    - a. Painted wall locations, provide white device with smooth, white nylon faceplate, unless directed otherwise.
    - b. Wood stained and tiled locations, provide black device with brushed stainless steel faceplate, unless directed otherwise.
    - c. For exterior locations, provide Arlington DBHR1W-1 outdoor electrical box with weatherproof cover.
  2. Type: Plates shall be standard size: "Jumbo" plates are not acceptable.

## 2.5 SWITCHES AND RECEPTACLES

- A. Quality Assurance:
  1. Wiring devices shall comply with NEMA Standard Publication WD-1, 1974.
  2. All special purpose receptacles shall be NEMA Standard configuration.

3. All devices shall be as follows:
  - a. Painted wall locations, provide white device with smooth, white nylon faceplate, unless directed otherwise.
  - b. Wood stained and tiled locations, provide black device with brushed stainless steel faceplate, unless directed otherwise.
  - c. For exterior locations, provide Arlington DBHR1W-1 outdoor electrical box with weatherproof cover.

### **PART 3 EXECUTION**

#### **3.1 MATERIALS INSTALLATION AND STORAGE**

##### **A. Materials and Apparatus:**

1. Materials used in this work, which are included in Underwriters' Label Service, shall be new and bear the Underwriters' Laboratories Inc. label. Materials not included in Underwriters' Label Service shall be new and conform to NEMA or other applicable industry standards. All material shall be the best quality of their respective kinds, full weight and standard in every way and satisfactory to the Owner.
2. All apparatus for the various systems shall be rated for the voltage of the system.

##### **B. Installation:**

1. All manufactured articles, materials, apparatus, and equipment shall be applied, connected, erected, used, cleaned, and conditioned as recommended by the manufacturer.
2. The Contractor shall make field measurements to ascertain space requirements, including those for connection, and shall order such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Contract Documents.
3. All equipment shall readily fit the space indicated on the drawings.
4. All equipment and apparatus normally requiring maintenance shall be made easily accessible.
5. Equipment shall be introduced into the building at such times and in such manner as to cause no damage to the structure.

##### **C. Storage:** Materials and equipment shall be so stored as to ensure the preservation of their quality and fitness for the work. Stored materials and equipment shall be located so as to facilitate prompt inspection. All items subject to moisture damage shall be stored in dry, heated spaces.

##### **D. Protection:**

1. Equipment shall be tightly covered and protected against dirt, water, or chemical, or mechanical injury or theft.
2. At completion of work, fixtures, equipment and materials shall be cleaned and polished thoroughly and turned over to the Owner in a condition satisfactory to the A/E.



3. Equipment or apparatus, which has become damaged or has defects shall be repaired or replaced prior to final payment.

### **3.2 CUTTING AND REPAIRING (ALSO SEE GENERAL REQUIREMENTS)**

- A. Cutting, repairing, and fitting of the electrical work shall be done by the Contractor for the installation of the electrical system as described in the Contract Documents. Do not cut work of other trades without their explicit consent and arrangement for repairs.
- B. All cutting and repairing of walls, floors and ceilings shall be subject to supervision and approval by the A/E.
- C. Existing walls, floors and ceilings shall be restored to a finished appearance and quality to match existing after the installation of any electrical equipment or device.

### **3.3 EXCAVATING AND BACKFILLING**

- A. Do all trenching, excavating and backfilling required for the electrical work indicated on the drawings, including repairing, shoring, bracing and pumping.
- B. Backfilling shall be done in layers of 8" fill, wetted down and tamped for each consecutive layer to grade. Refer to Section 02200, Earthwork for compacting requirements.
- C. Repairing of paved or sodded areas shall be comparable to work cut and shall be subject to approval by the A/E.
- D. The Contractor shall locate and avoid any existing facilities during excavation and shall give written notification of any unforeseen condition.

### **3.4 CONDUIT AND RACEWAY INSTALLATION**

- A. The conduit sizes indicated on the drawings may be increased to facilitate the pulling of cable.
- B. Provide junction boxes or pull boxes to avoid excessive runs or too many bends between outlets.
- C. Grout around all conduits passing through walls.
- D. Provide a No. 16 gauge steel pulley wire in all empty metallic conduits. Provide nylon pull cord in all empty PVC conduits.
- E. The conduit installation shall follow the layout indicated on the drawings.
  1. All conduit shall be concealed unless specified otherwise or indicated on the drawings. Concealed conduit shall be run above the suspended ceiling or within new walls.
  2. Run exposed conduit parallel with or at right angles to the building walls.

3. Exposed conduits shall be run tight against the ceiling and offset below obstruction, unless otherwise indicated on the drawings.
4. Conduits shown exposed at ceiling and connected to outlets or boxes in new walls shall be concealed in wall from ceiling down to outlet.
5. Exposed conduits shall not be supported from any of the Telephone Company's cable racking or auxiliary framing.

F. Schedule:

1. Electrical metallic tubing and fittings shall be used for the raceway system except as otherwise specified herein or otherwise shown on the drawings.
2. Conduits run underground or below floor slabs on grade shall be Schedule 40, heavy wall rigid PVC conduit. Lay underground conduits at a minimum depth below grade of 24" unless specifically indicated otherwise. Provide warning tape over all underground conduits or over each vertical tier when conduits are grouped in same trench.

G. Sizes:

1. No homerun conduit shall be smaller than  $\frac{3}{4}$ ".
2. No conduit shall be smaller than  $\frac{1}{2}$ ".
3. No bends shall be made with a radius less than six (6) times the diameter of the conduit nor more than 90°.

H. Apparatus Connections:

1. Where connections are to be made to equipment and motors that are not located near a wall or column, a vertical conduit attached to the floor and ceiling shall be installed and the wiring brought out of this conduit by means of condulets.
2. Connections to vibrating equipment such as electric motors, transformers and duct heaters shall be made with a short length of liquid tight flexible conduit.

### 3.5 SUPPORTING DEVICE INSTALLATION

- A. Spacing and Attachment: Support exposed conduit from walls or ceilings, at intervals required by the National Electrical Code, but not to exceed intervals of 2'0" for non-metallic conduit and 5'0" for electrical metallic tubing with approved galvanized iron clamps or hangers. Devices attached to masonry or slabs shall be secured with inserts or lead expansion sleeves.
- B. Exposed conduit run vertically up walls or columns shall be supported using two hole pipe straps directly on the wall or column.
- C. Support surface metal raceway and firmly fasten to wall when raceway enters outlet box and at intervals not to exceed 12".
- D. PVC conduit used in the grounding system shall be supported using nylon bolts in pipe straps or with all nylon conduit supports and hangers. PVC conduit used in the grounding system shall not be totally encircled by metal.

### 3.6 INSTALLATION OF WIRE AND CABLE

- A. No conductors shall be pulled until conduit system is complete.
- B. Conductors shall be pulled without damage to conductor or insulation. Provide pull boxes to facilitate pulling of wire.
- C. No conductors shall be pulled unless insulated bushings or insulated throat connectors have been installed as specified.
- D. Circuit Work: Make necessary joints in circuit work at the outlets with wire joints. Soldered joints shall not be used.
- E. Fixture Connections: Leave at each fixture outlet a loop or end of wire not less than 8" long for connections to fixtures.

### 3.7 INSTALLATION OF OUTLET BOXES AND RECEPTACLES

- A. The Contractor shall check the location of all wall outlets, including light fixtures, receptacle and switch boxes, to see that the outlet will clear any obstruction that may be encountered. The Contractor shall notify the A/E immediately if any conflict is noted.
- B. New Construction: Install all outlet boxes in new construction flush with wall or ceiling finish.
- C. Architectural Placement: Outlets occurring in architectural features shall be centered. Install all wall switch outlets an equal distance from door trims on the strike side of doors.
- D. Provide a standard galvanized steel outlet box and raised device cover or plaster ring where required for all flush mounted wall and ceiling light outlets, wall switches and wall receptacles:
  - 1. Outlet boxes shall be anchored in place.
  - 2. Where outlet boxes are installed in unfinished concrete walls or columns, a 1" deep device cover shall be provided and the box and cover set in position before the concrete is poured so that the concrete will fill around the device cover.
  - 3. Where outlet boxes are installed in brick walls or stucco/plaster walls, the same procedure as for concrete shall be followed and the mason will fill in around the device cover with mortar, stucco or plaster.
- E. Face Plates: Face plates shall be provided for all wiring devices, and all telephone outlets. Where more than one flush mounted wall outlet occurs at the same location, provide a multigang box and cover with one faceplate.
- F. Receptacles:

1. Provide 6" long pigtail green ground wire from grounding lug at all grounded type receptacles to a bonding device on the conduit or the outlet box. Ground wire shall not be connected to screw which attaches receptacle to outlet box.
  2. Provide 6" pigtail ("T" connection) and extend from neutral conductor of receptacle circuit being routed through outlet box and connect to neutral lug of grounding type receptacle.
- G. "Tele-Power" Poles": Support tele-power poles from ceiling structure with 3/8" diameter threaded rod. Attach threaded rod to power pole hangar clamp and attach hangar clamp to ceiling "T" – bar grid structure.

**END OF SECTION**

**SECTION 271000  
STRUCTURED CABLING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Communications system design requirements.
- B. Copper cable and terminations.
- C. Communications equipment room fittings.
- D. Communications outlets.
- E. Communications identification.

**1.02 RELATED REQUIREMENTS**

- A. Section 078400 - Firestopping.
- B. Section 260533.16 - Boxes for Electrical Systems.

**1.03 REFERENCE STANDARDS**

- A. BICSI N1 - Installation Practices for Telecommunications and ICT Cabling and Related Cabling Infrastructure, 1st Edition; 2019.
- B. EIA/ECA-310 - Cabinets, Racks, Panels, and Associated Equipment; 2005e.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- D. TIA-568 (SET) - Commercial Building Telecommunications Cabling Standard Set; 2023.
- E. TIA-568.2 - Balanced Twisted-Pair Telecommunications Cabling and Components Standards; 2018d, with Addenda (2020).
- F. TIA-569 - Telecommunications Pathways and Spaces; 2019e, with Addendum (2022).
- G. TIA-606 - Administration Standard for Telecommunications Infrastructure; 2021d.
- H. TIA-607 - Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises; 2019d, with Addendum (2021).
- I. UL 444 - Communications Cables; Current Edition, Including All Revisions.
- J. UL 514C - Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers; Current Edition, Including All Revisions.
- K. UL 1863 - Communications-Circuit Accessories; Current Edition, Including All Revisions.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Coordinate requirements for service entrance and entrance facilities with Communications Service Provider.
  - 2. Coordinate the work with other trades to avoid placement of other utilities or obstructions within the spaces dedicated for communications equipment.
  - 3. Coordinate arrangement of communications equipment with the dimensions and clearance requirements of the actual equipment to be installed.
  - 4. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.
- B. Arrange for Communications Service Provider to provide service.

**1.05 SUBMITTALS**

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets for each product.
- C. Shop Drawings: Show compliance with requirements on isometric schematic diagram of network layout, showing cable routings, telecommunication closets, rack and enclosure layouts

and locations, service entrance, and grounding, prepared and approved by BICSI Registered Communications Distribution Designer (RCDD).

- D. Evidence of qualifications for installer.
- E. Test Plan: Complete and detailed plan, with list of test equipment, procedures for inspection and testing, and intended test date; submit at least 60 days prior to intended test date.
- F. Field Test Reports.
- G. Project Record Documents: Prepared and approved by BICSI Registered Communications Distribution Designer (RCDD).
  - 1. Record actual locations of outlet boxes and distribution frames.
  - 2. Show as-installed color coding, pair assignment, polarization, and cross-connect layout.
  - 3. Identify distribution frames and equipment rooms by room number on drawings.
- H. Operation and Maintenance Data: List of all components with part numbers, sources of supply, and operation and maintenance instructions; include copy of project record documents.

#### 1.06 QUALITY ASSURANCE

- A. Installer Qualifications: A company having at least 3 years experience in the installation and testing of the type of system specified, and:
  - 1. Employing a BICSI Registered Communications Distribution Designer (RCDD).
  - 2. Supervisors and installers factory certified by manufacturers of products to be installed.
  - 3. Employing BICSI Registered Cabling Installation Technicians (RCIT) for supervision of all work.
- B. Products: Listed, classified, and labeled as suitable for the purpose intended.

#### 1.07 WARRANTY

- A. See Section 017800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a 2 year period after Date of Substantial Completion.

### PART 2 PRODUCTS

#### 2.01 SYSTEM DESIGN

- A. Provide a complete permanent system of cabling and pathways for voice and data communications, including cables, conduits and wireways, pull wires, support structures, enclosures and cabinets, and outlets.
  - 1. Comply with TIA-568 (SET) (cabling) and TIA-569 (pathways) (commercial standards).
  - 2. Provide fixed cables and pathways that comply with NFPA 70 and TIA-607 and are UL listed or third party independent testing laboratory certified.
  - 3. Provide connection devices that are rated for operation under conditions of 32 to 140 degrees F (0 to 60 degrees C) at relative humidity of 0 to 95 percent, noncondensing.
  - 4. In this project, the term plenum is defined as return air spaces above ceilings, inside ducts, under raised floors, and other air-handling spaces.
- B. System Description:
  - 1. Building Entrance Cable: By others.
  - 2. Offices and Work Areas: Provide one voice outlet and one data outlet in each work area unless noted otherwise on drawings.
  - 3. Provide additional outlets where indicated on drawings.
- C. Main Distribution Frame (MDF): Centrally located support structure for terminating horizontal cables that extend to telecommunications outlets, functioning as point of presence to external service provider.
  - 1. Locate main distribution frame as indicated on the drawings.
- D. Cabling to Outlets: Specified horizontal cabling, wired in star topology to distribution frame located at center hub of star; also referred to as "links".

#### 2.02 COPPER CABLE AND TERMINATIONS

- A. Copper Horizontal Cable:

1. Description: 100 ohm, balanced twisted pair cable complying with TIA-568.2 and listed and labeled as complying with UL 444.
  2. Cable Type - Voice and Data: TIA-568.2 Category 6 UTP (unshielded twisted pair); 23 AWG.
  3. Cable Capacity: 4-pair.
  4. Cable Applications:
    - a. Plenum Applications: Use listed NFPA 70 Type CMP plenum cable.
    - b. Riser Applications: Use listed NFPA 70 Type CMR riser cable or Type CMP plenum cable.
    - c. General Purpose Applications: Use listed NFPA 70 Type CM/CMG general purpose cable, Type CMR riser cable, or Type CMP plenum cable.
  5. Cable Jacket Color - Voice and Data Cable: Blue.
- B. Copper Cable Terminations: Insulation displacement connection (IDC) type using appropriate tool; use screw connections only where specifically indicated.
- C. Jacks and Connectors: Modular RJ-45, non-keyed, terminated with 110-style insulation displacement connectors (IDC); high impact thermoplastic housing; suitable for and complying with same standard as specified horizontal cable; UL 1863 listed.
1. Performance: 500 mating cycles.
  2. Voice and Data Jacks: 8-position modular jack, color-coded for both T568A and T568B wiring configurations.
- D. Copper Patch Cords:
1. Description: Factory-fabricated 4-pair cable assemblies with 8-position modular connectors terminated at each end.

### **2.03 COMMUNICATIONS EQUIPMENT ROOM FITTINGS**

- A. Copper Cross-Connection Equipment:
1. Connector Blocks for Category 5e and Up Cabling: Type 110 insulation displacement connectors; capacity sufficient for cables to be terminated plus 25 percent spare.
  2. Patch Panels for Copper Cabling: Sized to fit EIA/ECA-310 standard 19 inch (482.6 mm) wide equipment racks; 0.09 inch (2.2 mm) thick aluminum; cabling terminated on Type 110 insulation displacement connectors; printed circuit board interface.
    - a. Jacks: Non-keyed RJ-45, suitable for and complying with same standard as cable to be terminated; maximum 48 ports per standard width panel.
    - b. Capacity: Provide ports sufficient for cables to be terminated plus 25 percent spare.
    - c. Labels: Factory installed laminated plastic nameplates above each port, numbered consecutively; comply with TIA-606.
    - d. Provide incoming cable strain relief and routing guides on back of panel.
- B. Backboards: Interior grade plywood without voids, 3/4 inch (19 mm) thick; UL-labeled fire-retardant.
1. Size: As indicated on drawings.
  2. Do not paint over UL label.
- C. Equipment Frames, Racks and Cabinets:
1. Component Racks: EIA/ECA-310 standard 19 inch (482.6 mm) wide.
  2. Floor Mounted Racks: Aluminum or steel construction with corrosion resistant finish; vertical and horizontal cable management channels, top and bottom cable troughs, and grounding lug.

### **2.04 COMMUNICATIONS OUTLETS**

- A. Outlet Boxes: Comply with Section 260533.16.
1. Provide depth as required to accommodate cable manufacturer's recommended minimum conductor bend radius.
- B. Wall Plates:
1. Comply with system design standards and UL 514C.
  2. Accepts modular jacks/inserts.

3. Capacity:
  - a. Data or Combination Voice/Data Outlets: \_\_\_\_\_ ports.
4. Wall Plate Material/Finish - Flush-Mounted Outlets: Match wiring device and wall plate finishes specified on the drawings.

## 2.05 IDENTIFICATION PRODUCTS

- A. Comply with TIA-606.

## PART 3 EXECUTION

### 3.01 INSTALLATION - GENERAL

- A. Comply with latest editions and addenda of TIA-568 (SET) (cabling), TIA-569 (pathways), TIA-607 (grounding and bonding), BICSI N1, NFPA 70, and SYSTEM DESIGN as specified in PART 2.
- B. Comply with Communication Service Provider requirements.
- C. Grounding and Bonding: Perform in accordance with TIA-607 and NFPA 70.
- D. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 078400.

### 3.02 INSTALLATION OF PATHWAYS

- A. Install pathways with the following minimum clearances:
  1. 48 inches (1220 mm) from motors, generators, frequency converters, transformers, x-ray equipment, and uninterruptible power systems.
  2. 12 inches (300 mm) from power conduits and cables and panelboards.
  3. 5 inches (125 mm) from fluorescent and high frequency lighting fixtures.
  4. 6 inches (150 mm) from flues, hot water pipes, and steam pipes.
- B. Minimum Cover - Underground Service Entrance: Comply with NFPA 70 and Communications Service Provider requirements.
- C. Outlet Boxes:
  1. Coordinate locations of outlet boxes provided under Section 260533.16 as required for installation of telecommunications outlets provided under this section.
    - a. Mounting Heights: Unless otherwise indicated, as follows:
      - 1) Telephone and Data Outlets: 18 inches (450 mm) above finished floor.
      - 2) Telephone Outlets for Side-Reach Wall-Mounted Telephones: 54 inches (1.4 m) above finished floor to top of telephone.
      - 3) Telephone Outlets for Forward-Reach Wall-Mounted Telephones: 48 inches (1.2 m) above finished floor to top of telephone.
    - b. Orient outlet boxes for vertical installation of wiring devices unless otherwise indicated.
    - c. Provide minimum of 24 inches (600 mm) horizontal separation between flush mounted outlet boxes installed on opposite sides of fire rated walls.
    - d. Unless otherwise indicated, provide separate outlet boxes for line voltage and low voltage devices.
    - e. Locate outlet boxes so that wall plate does not span different building finishes.

### 3.03 INSTALLATION OF EQUIPMENT AND CABLING

- A. Cabling:
  1. Do not bend cable at radius less than manufacturer's recommended bend radius; for unshielded twisted pair use bend radius of not less than 4 times cable diameter.
  2. Do not over-cinch or crush cables.
  3. Do not exceed manufacturer's recommended cable pull tension.
  4. When installing in conduit, use only lubricants approved by cable manufacturer and do not chafe or damage outer jacket.
- B. Service Loops (Slack or Excess Length): Provide the following minimum extra length of cable, looped neatly:



1. At Distribution Frames: 120 inches (3000 mm).
  2. At Outlets - Copper: 12 inches (305 mm).
- C. Copper Cabling:
1. Category 5e and Above: Maintain cable geometry; do not untwist more than 1/2 inch (12 mm) from point of termination.
  2. For 4-pair cables in conduit, do not exceed 25 pounds (110 N) pull tension.
  3. Use T568B wiring configuration.
- D. Floor-Mounted Racks and Enclosures: Permanently anchor to floor in accordance with manufacturer's recommendations.
- E. Identification:
1. Use wire and cable markers to identify cables at each end.
  2. Use manufacturer-furnished label inserts, identification labels, or engraved wallplate to identify each jack at communications outlets with unique identifier.
  3. Use identification nameplate to identify cross-connection equipment, equipment racks, and cabinets.

### **3.04 FIELD QUALITY CONTROL**

- A. See Section 014000 - Quality Requirements, for additional requirements.
- B. Comply with inspection and testing requirements of specified installation standards.
- C. Visual Inspection:
1. Inspect cable jackets for certification markings.
  2. Inspect cable terminations for color coded labels of proper type.
  3. Inspect outlet plates and patch panels for complete labels.
  4. Inspect patch cords for complete labels.
- D. Testing - Copper Cabling and Associated Equipment:
1. Test operation of shorting bars in connection blocks.
  2. Category 5e and Above Backbone: Perform near end cross talk (NEXT) and attenuation tests.
  3. Category 5e and Above Links: Perform tests for wire map, length, attenuation, NEXT, and propagation delay.
- E. Final Testing: After all work is complete, including installation of telecommunications outlets, and telephone dial tone service is active, test each voice jack for dial tone.

**END OF SECTION**

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**SECTION 31 31 16 - TERMITE CONTROL****PART 1 - GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. SECTION INCLUDES:
  - 1. SOIL TREATMENT WITH TERMITICIDE.

**1.03 SUBMITTALS**

- A. Product Data: For each type of termite control product.
  - 1. Include the EPA-Registered Label for termiticide products.
- B. Product Certificates: For termite control products, from manufacturer.
- C. Soil Treatment Application Report: After application of termiticide is completed, submit report for Owner's records and include the following:
  - 1. Date and time of application.
  - 2. Moisture content of soil before application.
  - 3. Termiticide brand name and manufacturer.
  - 4. Quantity of undiluted termiticide used.
  - 5. Dilutions, methods, volumes used, and rates of application.
  - 6. Areas of application.
  - 7. Water source for application.
- D. Warranties: Sample of special warranties.

**1.04 QUALITY ASSURANCE**

- A. Installer Qualifications: A specialist who is licensed according to regulations of authorities having jurisdiction to apply termite control treatment and products in jurisdiction where Project is located.
- B. Regulatory Requirements: Formulate and apply termiticides and termiticide devices according to the EPA-Registered Label.
- C. Source Limitations: Obtain termite control products from single source from single manufacturer.
- D. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work, including preparation of substrate and application.
- E. Follow all guidelines as designated by current building code and/or by the authorities having jurisdiction.

**1.05 PROJECT CONDITIONS**

- A. Environmental Limitations: To ensure penetration, do not treat soil that is water saturated or frozen. Do not treat soil while precipitation is occurring. Comply with requirements of the EPA-Registered Label and requirements of authorities having jurisdiction.
- B. Coordinate soil treatment application with excavating, filling, grading, and concreting operations. Treat soil under footings, grade beams, and ground-supported slabs before construction.
- C. Restrictions: Do not apply soil treatment solution until excavating, filling and grading operations are completed, except as otherwise required in construction operations.

**1.06 WARRANTY**

- A. Soil Treatment Special Warranty: Manufacturer's standard form, signed by Applicator and Contractor, certifying that termite control work, consisting of applied soil

termiticide treatment, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during warranty period, re-treat soil and repair or replace damage caused by termite infestation.

1. Warranty Period: 5 years from date of Substantial Completion.
- B. The warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

### **1.07 MAINTENANCE SERVICE**

- A. Continuing Service: Beginning at Substantial Completion, provide 12 months continuing service including monitoring, inspection, and re-treatment for occurrences of termite activity. Provide a standard continuing service agreement. State services, obligations, conditions, terms for agreement period, and terms for future renewal options.

## **PART 2 - PRODUCTS**

### **2.01 SOIL TREATMENT**

- A. Termiticide: Provide an EPA-Registered termiticide, complying with requirements of authorities having jurisdiction, in an aqueous solution formulated to prevent termite infestation. Provide quantity required for application at the label volume and rate for the maximum termiticide concentration allowed for each specific use, according to product's EPA-Registered Label.
  1. Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. BASF,s "Termidor".
  2. Service Life of Treatment: Soil treatment termiticide that is effective for not less than 5 years against infestation of subterranean termites.

### **2.02 SOIL TREATMENT SOLUTION**

- A. General: Use an emulsible, concentrated termiticide that dilutes with water, specially formulated to prevent infestation. Fuel oil will not be permitted as a diluent.
- B. Dilute with water to concentration level recommended by manufacturer.
- C. Other solutions may be used as recommended by Applicator if approved for intended application by local authorities having jurisdiction. Use only soil treatment solutions that are not harmful to plants.

## **PART 3 - EXECUTION**

### **3.01 EXAMINATION**

- A. Examine substrates, areas, and conditions, with Applicator present, for compliance with requirements for moisture content of soil per termiticide label requirements, interfaces with earthwork, slab and foundation work, landscaping, utility installation, and other conditions affecting performance of termite control.
- B. Proceed with application only after unsatisfactory conditions have been corrected.

### **3.02 PREPARATION**

- A. General: Comply with the most stringent requirements of authorities having jurisdiction and with manufacturer's written instructions for preparation before beginning application of termite control treatment. Remove all extraneous sources of wood cellulose and other edible materials such as wood debris, tree stumps and roots, stakes, formwork, and construction waste wood from soil within and around foundations.
- B. Soil Treatment Preparation: Remove foreign matter and impermeable soil materials that could decrease treatment effectiveness on areas to be treated. Loosen, rake, and level soil to be treated except previously compacted areas under slabs and footings. Termiticides may be applied before placing compacted fill under slabs if recommended in writing by termiticide manufacturer.

1. Fit filling hose connected to water source at the site with a backflow preventer, complying with requirements of authorities having jurisdiction.

### **3.03 APPLICATION, GENERAL**

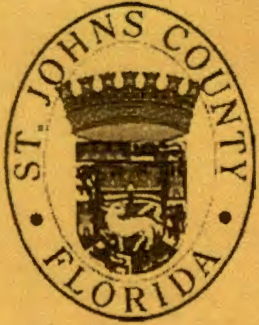
- A. General: Comply with the most stringent requirements of authorities having jurisdiction and with manufacturer's EPA-Registered Label for products.

### **3.04 APPLYING SOIL TREATMENT**

- A. Application: Mix soil treatment termiticide solution to a uniform consistency. Provide quantity required for application at the label volume and rate for the maximum specified concentration of termiticide, according to local authorities having jurisdiction, manufacturer's EPA-Registered Label, or as indicated below whichever is most stringent to the following so that a continuous horizontal and vertical termiticidal barrier or treated zone is established around and under building construction. Distribute treatment evenly.
  1. Slabs-on-Grade and Basement Slabs: Under ground-supported slab construction, including footings, building slabs, and attached slabs as an overall treatment. Treat soil materials before concrete footings and slabs are placed.
  2. Foundations: Adjacent soil, including soil along the entire inside perimeter of foundation walls; along both sides of interior partition walls; around plumbing pipes and electric conduit penetrating the slab; around interior column footers, piers, and chimney bases; and along the entire outside perimeter, from grade to bottom of footing. Avoid soil washout around footings.
  3. Crawlspace: Soil under and adjacent to foundations as previously indicated. Treat adjacent areas including around entrance platform, porches, and equipment bases. Apply overall treatment only where attached concrete platform and porches are on fill or ground.
  4. Masonry: Treat voids.
  5. Penetrations: At expansion joints, control joints, and areas where slabs will be penetrated.
- B. Under slab-on-grade treat soil before concrete slabs are placed, using the following rates of application:
- C. Apply 4 gallons of chemical solution per 10 lin. ft. to soil in critical areas under slab, including entire inside perimeter inside of foundation walls, along both sides of interior partition walls, around plumbing pipes and electric conduit penetrating slab, and around interior column footers.
- D. Apply one gallon of chemical solution per 10 sq. ft. as an overall treatment under slab and at tached slab areas where fill is soil or unwashed gravel. Apply 1-1/2 gallons of chemical solution to areas where fill is washed gravel or other coarse absorbent material.
- E. Apply 4 gallons of chemical solution per 10 lin. ft. of trench, for each foot of depth from grade to footing, along outside edge of building. Dig a trench 6" to 8" wide along outside of foundation to a depth of not less than 12". Punch holes to top of footing at not more than 12" o.c. and apply chemical solution. Mix chemical solution with the soil as it is being replaced in trench.
- F. At hollow masonry foundations or grade beams, treat voids at rate of 2 gallons per 10 linear feet, poured directly into the hollow spaces.
- G. At expansion joints, control joints, and areas where slabs will be penetrated, apply at rate of 4 gal lons per 10 linear feet, of penetration.
- H. Avoid disturbance of treated soil after application. Keep off treated areas until completely dry.
- I. Protect termiticide solution, dispersed in treated soils and fills, from being diluted until ground supported slabs are installed. Use waterproof barrier according to EPA-Registered Label instructions.

- J. Post warning signs in areas of application to warn workers that soil termiticide treatment has been applied.
- K. Reapply soil treatment solution to areas disturbed by subsequent excavation, grading, landscaping, or other construction activities following application.

**END OF SECTION 31 31 16**



ST. JOHNS COUNTY  
OPERATIONS DIVISION

**PAVING & DRAINAGE CONSTRUCTION PERMIT**

THIS PERMIT MUST BE POSTED ON-SITE WITH A COPY OF APPROVED PAVING & DRAINAGE PLANS, AT LEAST 30 DAYS FOLLOWING COMMENCEMENT OF CONSTRUCTION OF OR UNTIL A VALID BUILDING PERMIT IS POSTED, FACING STREET & PROTECTED FROM ELEMENTS.

PERMIT NO: COMM 2024-86 DATE ISSUE: 10/01/2024

Flagler Estates Fire Station

PROJECT NAME: \_\_\_\_\_

ADDRESS/LOCATION: Flagler Estates, Hastings, FL 32145, Melanie St. between Oliver Ave. and Nikolich St.

OWNER: St. Johns County PHONE : N/A

Disclaimer: All other applicable State and Federal Permits must be obtained before commencement of construction. Issuance of the Development Permit does not in any way create rights on the part of the applicant to obtain a permit from a State or Federal Agency and does not create any liability on the part of the County for issuance of the permit of the applicant fails to obtain requisite approval or fulfill the obligations imposed by a State or Federal Agency or undertakes actions that results in violation of State or Federal laws. Please contact St. Johns County Operations at 904-209-0660 when design changes are made to subsequent site plans, they must be brought to the attention of County staff. Failure to do some may result in additional permitting or delays during construction.

AN AS-BUILT SUVEY MUST BE APPROVED PRIOR TO REQUESTING A FINAL INSPECTION.



# St. Johns River Water Management District

Michael A. Register, P.E., Executive Director

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4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • 386-329-4500 • [www.sjrwmd.com](http://www.sjrwmd.com)

October 29, 2024

Brad Guagliardo  
St. Johns County - Engineering Division  
2750 Industry Center Rd  
St Augustine, FL 32084-0529

SUBJECT: 223875-1  
Flagler Estates Fire Station

Dear Sir/Madam:

Enclosed is your individual permit issued by the St. Johns River Water Management District on October 29, 2024. This permit is a legal document and should be kept with your other important documents. Permit issuance does not relieve you from the responsibility of obtaining any necessary permits from any federal, state, or local agencies for your project.

### **Technical Staff Report:**

If you wish to review a copy of the Technical Staff Report (TSR) that provides the District's staff analysis of your permit application, you may view the TSR by going to the Permitting section of the District's website at [www.sjrwmd.com/permitting](http://www.sjrwmd.com/permitting). Using the "search applications and permits" feature, you can use your permit number or project name to find information about the permit. When you see the results of your search, click on the permit number and then on the TSR folder.

### **Noticing Your Permit:**

For noticing instructions, please refer to the noticing materials in this package regarding closing the point of entry for someone to challenge the issuance of your permit. Please note that if a timely petition for administrative hearing is filed, your permit will become non-final and any activities that you choose to undertake pursuant to your permit will be at your own risk. Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action.

### **Compliance with Permit Conditions:**

To submit your required permit compliance information, go to the District's website at [www.sjrwmd.com/permitting](http://www.sjrwmd.com/permitting). Under the "Apply for a permit or submit compliance data" section, click to sign-in to your existing account or to create a new account. Select the "Compliance Submittal" tab, enter your permit number, and select "No Specific Date" for the Compliance Due Date Range. You will then be able to view all the compliance submittal requirements for your project. Select the compliance item that you are ready to submit and then attach the appropriate information or form. The forms to comply with your permit conditions are available at [www.sjrwmd.com/permitting](http://www.sjrwmd.com/permitting) under the section "Handbooks, forms, fees, final orders". Click on forms to view all permit compliance forms, then scroll to the ERP application forms section and

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#### GOVERNING BOARD

Rob Bradley, CHAIR  
FLEMING ISLAND

Ryan Atwood  
MOUNT DORA

Maryam H. Ghyabi-White, VICE CHAIR  
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Ron Howse  
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Cole Oliver, TREASURER  
MERRITT ISLAND

Janet Price  
FERNANDINA BEACH



select the applicable compliance forms. Alternatively, if you have difficulty finding forms or need copies of the appropriate forms, please contact the Bureau of Regulatory Support at (386) 329-4570.

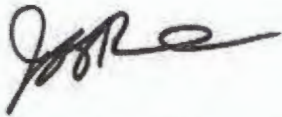
**Transferring Your Permit:**

Your permit requires you to notify the District within 30 days of any change in ownership or control of the project or activity covered by the permit, or within 30 days of any change in ownership or control of the real property on which the permitted project or activity is located or occurs. You will need to provide the District with the information specified in rule 62-330.340, Florida Administrative Code (F.A.C.). Generally, this will require you to complete and submit Form 62-330.340(1), "Request to Transfer Permit," available at <http://www.sjrwmd.com/permitting/permitforms.html>.

Please note that a permittee is liable for compliance with the permit before the permit is transferred. The District, therefore, recommends that you request a permit transfer in advance in accordance with the applicable rules. You are encouraged to contact District staff for assistance with this process.

Thank you and please let us know if you have additional questions. For general questions contact [e-permit@sjrwmd.com](mailto:e-permit@sjrwmd.com) or (386) 329-4570.

Sincerely,



Jeff Prather, Division Director  
Division of Regulatory Services  
St. Johns River Water Management District  
2501 S. Binion Rd  
Apopka, FL 32703  
321-676-6609

Enclosures: Permit  
Notice of Rights  
List of Newspapers for Publication

cc: District Permit File

Matthew R Singletary  
4730 Casa Cola Way  
Ste 200  
St Augustine, FL 32095-6116

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT**  
Post Office Box 1429  
Palatka, Florida 32178-1429

**PERMIT NO:** 223875-1

**DATE ISSUED:** October 29, 2024

**PROJECT NAME:** Flagler Estates Fire Station

**A PERMIT AUTHORIZING:**

Construction and operation of a Stormwater Management System for a 2.46-acre project known as Flagler Estates Fire Station as per plans received by the District on October 1, 2024.

**LOCATION:**

Section(s): 2                      Township(s): 10S                      Range(s): 28E  
St. Johns County

**Receiving Water Body:**

Name	Class
Sixteenmile Creek	III Fresh, IW

**ISSUED TO:**

St. Johns County - Engineering Division  
2750 Industry Center Rd  
St Augustine, FL 32084-0529

The permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to the permittee any property rights nor any rights or privileges other than those specified herein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

**PERMIT IS CONDITIONED UPON:**

See conditions on attached "Exhibit A", dated October 29, 2024

**AUTHORIZED BY:** St. Johns River Water Management District  
Division of Regulatory Services

By: 

\_\_\_\_\_  
Craig McCammon  
Supervising Regulatory Scientist

**"EXHIBIT A"**  
**CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 223875-1**  
**Flagler Estates Fire Station**  
**DATED October 29, 2024**

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the District staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the District a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013) (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505>), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the District, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.
5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
  - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex — "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

b. For all other activities — “As-Built Certification and Request for Conversion to Operation Phase” [Form 62-330.310(1)].

c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:

a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

b. Within 30 days of submittal of the as-built certification, the permittee shall submit “Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity” [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the District in writing of changes required by any other regulatory District that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:

a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

b. Convey to the permittee or create in the permittee any interest in real property;

c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the District in writing:

a. Immediately if any previously submitted information is discovered to be inaccurate; and

- b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
13. Upon reasonable notice to the permittee, District staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.
  14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850) 245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.
  15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
  16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
  17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the District will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
  18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.
  19. This permit for construction will expire five years from the date of issuance.
  20. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and stabilization.

21. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.
22. This permit does not authorize the permittee to cause any adverse impact to or “take” of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of “take” and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a “take” permit cannot be issued. Requests for further information or review can be sent to [FWCConservationPlanningServices@MyFWC.com](mailto:FWCConservationPlanningServices@MyFWC.com).
23. The operation and maintenance entity shall inspect the stormwater or surface water management system once within two years after the completion of construction and every two years thereafter to determine if the system is functioning as designed and permitted. The operation and maintenance entity must maintain a record of each required inspection, including the date of the inspection, the name and contact information of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours. If at any time the system is not functioning as designed and permitted, then within 30 days the entity shall submit a report electronically or in writing to the District using Form 62-330.311(1), “Operation and Maintenance Inspection Certification,” describing the remedial actions taken to resolve the failure or deviation.
24. The mitigation plan, which includes the use of 0.45 forested, freshwater UMAM credits from the Deep Creek ROMA, Basin 8, per the ledger received by the District on October 4, 2024, is incorporated as a condition of this permit.
25. The proposed wetland and/or surface water impacts must be performed as indicated on the plans received by the District on October 1, 2024.
26. The Surface Water Management System shall be constructed and operated per the plans received by the District on October 1, 2024.

## Notice Of Rights

1. A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) or by e-mail with the District Clerk at [Clerk@sjrwmd.com](mailto:Clerk@sjrwmd.com), within twenty-six (26) days of the District depositing the notice of District decision in the mail (for those persons to whom the District mails actual notice), within twenty-one (21) days of the District emailing the notice of District decision (for those persons to whom the District emails actual notice), or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Chapter 28-106, Florida Administrative Code. The District will not accept a petition sent by facsimile (fax), as explained in paragraph no. 4 below.
2. Please be advised that if you wish to dispute this District decision, mediation may be available and that choosing mediation does not affect your right to an administrative hearing. If you wish to request mediation, you must do so in a timely-filed petition. If all parties, including the District, agree to the details of the mediation procedure, in writing, within 10 days after the time period stated in the announcement for election of an administrative remedy under Sections 120.569 and 120.57, Florida Statutes, the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, shall be tolled to allow mediation of the disputed District decision. The mediation must be concluded within 60 days of the date of the parties' written agreement, or such other timeframe agreed to by the parties in writing. Any mediation agreement must include provisions for selecting a mediator, a statement that each party shall be responsible for paying its pro-rata share of the costs and fees associated with mediation, and the mediating parties' understanding regarding the confidentiality of discussions and documents introduced during mediation. If mediation results in settlement of the administrative dispute, the District will enter a final order consistent with the settlement agreement. If mediation terminates without settlement of the dispute, the District will notify all the parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Florida Statutes, is resumed. Even if a party chooses not to engage in formal mediation, or if formal mediation does not result in a settlement agreement, the District will remain willing to engage in informal settlement discussions.
3. A person whose substantial interests are or may be affected has the right to an informal administrative hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must also comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.

## Notice Of Rights

4. A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8:00 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at [sjrwmd.com](http://sjrwmd.com). These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile is prohibited and shall not constitute filing.
5. Failure to file a petition for an administrative hearing within the requisite timeframe shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, Florida Administrative Code).
6. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. A person whose substantial interests are or may be affected by the District's final action has the right to become a party to the proceeding, in accordance with the requirements set forth above.
7. Pursuant to Section 120.68, Florida Statutes, a party to the proceeding before the District who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, within 30 days of the rendering of the final District action.
8. A District action is considered rendered, as referred to in paragraph no. 7 above, after it is signed on behalf of the District and filed by the District Clerk.
9. Failure to observe the relevant timeframes for filing a petition for judicial review as described in paragraph no. 7 above will result in waiver of that right to review.



## NOTICING INFORMATION

Please be advised that the St. Johns River Water Management District will not publish a notice in the newspaper advising the public that it has issued a permit for this project.

Newspaper publication, using the District's notice form, notifies members of the public of their right to challenge the issuance of the permit. If proper notice is given by newspaper publication, then there is a 21-day time limit for someone to file a petition for an administrative hearing to challenge the issuance of the permit.

To close the point of entry for filing a petition, you may publish (at your own expense) a one-time notice of the District's decision in a newspaper of general circulation within the affected area as defined in Section 50.011 of the Florida Statutes. If you do not publish a newspaper notice to close the point of entry, the time to challenge the issuance of your permit will not expire and someone could file a petition even after your project is constructed.

A copy of the notice form and a partial list of newspapers of general circulation are attached for your convenience. However, you are not limited to those listed newspapers. If you choose to close the point of entry and the notice is published, the newspaper will return to you an affidavit of publication. *In that event, it is important that you* either submit a scanned copy of the affidavit by emailing it to [compliancesupport@sjrwmd.com](mailto:compliancesupport@sjrwmd.com) (preferred method) or send a copy of the original affidavit to:

Office of Records and Regulatory Support  
4049 Reid Street  
Palatka, FL 32177

If you have any questions, please contact the Office of Records and Regulatory Support at (386) 329-4570.

NOTICE OF AGENCY ACTION TAKEN BY THE  
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Notice is given that the following permit was issued on \_\_\_\_\_:

(Name and address of applicant) \_\_\_\_\_  
permit# \_\_\_\_\_. The project is located in \_\_\_\_\_ County, Section  
\_\_\_\_\_, Township \_\_\_\_\_ South, Range \_\_\_\_\_ East. The permit authorizes a surface  
water management system on \_\_\_\_\_ acres for \_\_\_\_\_ known as  
\_\_\_\_\_. The receiving water body is \_\_\_\_\_.

A person whose substantial interests are or may be affected has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District). Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code (F.A.C.), the petition must be filed (received) either by delivery at the office of the District Clerk at District Headquarters, P.O. Box 1429, Palatka FL 32178-1429 (4049 Reid St, Palatka, FL 32177) or by e-mail with the District Clerk at Clerk@sjrwmd.com, within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail or email actual notice). A petition must comply with Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes (F.S.), and Chapter 28-106, F.A.C. The District will not accept a petition sent by facsimile (fax). Mediation pursuant to Section 120.573, F.S., may be available and choosing mediation does not affect your right to an administrative hearing.

A petition for an administrative hearing is deemed filed upon receipt of the complete petition by the District Clerk at the District Headquarters in Palatka, Florida during the District's regular business hours. The District's regular business hours are 8 a.m. – 5 p.m., excluding weekends and District holidays. Petitions received by the District Clerk after the District's regular business hours shall be deemed filed as of 8 a.m. on the District's next regular business day. The District's acceptance of petitions filed by e-mail is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation (issued pursuant to Rule 28-101.001, Florida Administrative Code), which is available for viewing at [www.sjrwmd.com](http://www.sjrwmd.com). These conditions include, but are not limited to, the petition being in the form of a PDF or TIFF file and being capable of being stored and printed by the District. Further, pursuant to the District's Statement of Agency Organization and Operation, attempting to file a petition by facsimile (fax) is prohibited and shall not constitute filing.

The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, Chapter 28-106, Florida Administrative Code, and Rule 40C-1.1007, Florida Administrative Code. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means the District's final action may be different from the position taken by it in this notice. **Failure to file a petition for an administrative hearing within the requisite time frame shall constitute a waiver of the right to an administrative hearing. (Rule 28-106.111, F.A.C.).**

If you wish to do so, please visit [http://www.sjrwmd.com/nor\\_dec/](http://www.sjrwmd.com/nor_dec/) to read the complete Notice of Rights to determine any legal rights you may have concerning the District's decision(s) on the permit application(s) described above. You can also request the Notice of Rights by contacting the Director of Office of Records and Regulatory Support, 4049 Reid St., Palatka, FL 32177-2529, tele. no. (386)329-4570.

## **NEWSPAPER ADVERTISING**

### **ALACHUA**

Gainesville Sun, Legal Advertising  
2700 SW 13<sup>th</sup> Street  
Gainesville, FL 32608  
866-858-9652

### **BRAFORD**

Bradford County Telegraph, Legal Advertising  
P. O. Drawer A  
Starke, FL 32901  
904-964-6305/ fax 904-964-8628

### **CLAY**

Clay Today, Legal Advertising  
1560 Kinsley Ave., Suite 1  
Orange Park, FL 32073  
904-264-3200/ fax 904-264-3285

### **FLAGLER**

Flagler Tribune, c/o News Journal  
P. O. Box 2831  
Daytona Beach, FL 32120-2831  
386-681-2322

### **LAKE**

Daily Commercial, Legal Advertising  
P. O. Drawer 490007  
Leesburg, FL 34749  
352-365-8235/fax 352-365-1951

### **NASSAU**

News-Leader, Legal Advertising  
P. O. Box 766  
Fernandina Beach, FL 32035  
904-261-3696/fax 904-261-3698

### **ORANGE**

Sentinel Communications, Legal Advertising  
633 N. Orange Avenue  
Orlando, FL 32801  
407-420-5160/ fax 407-420-5011

### **PUTNAM**

Palatka Daily News, Legal Advertising  
P. O. Box 777  
Palatka, FL 32178  
386-312-5200/ fax 386-312-5209

### **SEMINOLE**

Sanford Herald, Legal Advertising  
300 North French Avenue  
Sanford, FL 32771  
407-323-9408

### **BAKER**

Baker County Press, Legal Advertising  
P. O. Box 598  
Macclenny, FL 32063  
904-259-2400/ fax 904-259-6502

### **BREVARD**

Florida Today, Legal Advertising  
P. O. Box 419000  
Melbourne, FL 32941-9000  
321-242-3832/ fax 321-242-6618

### **DUVAL**

Daily Record, Legal Advertising  
P. O. Box 1769  
Jacksonville, FL 32201  
904-356-2466 / fax 904-353-2628

### **INDIAN RIVER**

Treasure Coast News  
760 NW Enterprise Dr.  
Port St. Lucie, FL 34986  
772-283-5252

### **MARION**

Ocala Star Banner, Legal Advertising  
2121 SW 19th Avenue Road  
Ocala, FL 34474  
352-867-4010/fax 352-867-4126

### **OKEECHOBEE**

Okeechobee News, Legal Advertising  
P. O. Box 639  
Okeechobee, FL 34973-0639  
863-763-3134/fax 863-763-5901

### **OSCEOLA**

Little Sentinel, Legal Advertising  
633 N. Orange Avenue  
Orlando, FL 32801  
407-420-5160/ fax 407-420-5011

### **ST. JOHNS**

St. Augustine Record, Legal Advertising  
P. O. Box 1630  
St. Augustine, FL 32085  
904-819-3439

### **VOLUSIA**

News Journal Corporation, Legal Advertising  
P. O. Box 2831  
Daytona Beach, FL 32120-2831  
(386) 681-2322

**SECTION 01 23 00 - ALTERNATES****PART 1 GENERAL****1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes administrative and procedural requirements for alternates.

**1.03 DEFINITIONS**

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

**1.04 PROCEDURES**

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include, as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation, whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other Work of the Contract.
- C. Schedule: A Part 3 "Schedule of Alternates" Article is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

**PART 2 PRODUCTS (NOT USED)****PART 3 EXECUTION****3.01 SCHEDULE OF ALTERNATES**

- A. Alternate No. 1 - Storage Building.
  - 1. Base Bid: Consists of mechanical enclosure, as shown on A-100, and fencing/sod at area of proposed storage building. Storage building not included.
  - 2. Alternate: Provide storage building as shown on A1-100 (and other drawings as applicable). Additionally, delete fence, sod and portion of mechanical enclosure wall as shown on C-301, in area of proposed storage building.
- B. Alternate No. 2 - Apparatus Bay Doors.
  - 1. Base Bid: Provide 4-fold apparatus bay doors per plans and specification section 08 36 00 - Four-Fold Bay Doors.
  - 2. Alternate: Replace 4-fold apparatus bay doors with sectional doors per specification section 08 36 13 - Sectional Doors.
- C. Alternate No. 3 - Water Tower.
  - 1. Base Bid: Provide fire service well in location shown on civil plans, including fire pump. Do not include water tower.

2. Alternate: Provide fire service well in alternate location shown on civil plans, including well pump and water tower.
- D. Alternate No. 4 - Apparatus Bay Fan
1. Base Bid: No work associated with fan.
  2. Alternate: Provide fan, controls, and all associated work as indicated on drawings.
- DI. Alternate No. 5 - VE Canopies
1. Base Bid: Provide canopies and coverings per plans and specifications.
  2. Alternate: Delete covered patio and entrance canopies.
    - a. Delete covered patio generally consisting of roofing, soffit, lighting and columns. (Note: Concrete patio and gas connection for grill to remain).
    - b. Delete entrance canopies at south facade.
- DII. Alternate No. 6 - Delete Coffee and Kitchen Island Millwork
1. Base Bid: Provide kitchen island and coffee counter millwork as shown on A-400.
  2. Alternate: Delete coffee station and kitchen island millwork.
    - a. Delete coffee station millwork, tile and shelving.
    - b. Delete kitchen island millwork.
    - c. Provide accommodations within remaining kitchen millwork for trash bin. Location to be determined.
- DIII. Alternate No. 7 - Building Automation

1. Base Bid: Provide building automation per plans and specifications.
  2. Alternate: Remove building automation system and provide stand alone controls for all systems to match system type.
- J. Alternate No. 8- VE Floor Plan Changes
1. Base Bid: Provide floor plan per plans and specifications.
  2. Alternate: Provide revised floor plan per A-100A. Additionally, revised Sheriff's area to include mechanic
    - a. Reduce Sheriff area to approximately 250sf and modify layout to include toilet room, office and entry. Remove AHU-1, CU-1 and DHU-1. Provide (1) zone mini-split system with (1) ceiling cassettes. Each cassette shall have outside air to brick vent. System shall be 12,000 btu.

**END OF SECTION 01 23 00**

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